LYNX Blue Line Extension

(Northeast Corridor)

Light Rail Project

Contract #: 08-477

WBS #: 6.09

ARCHAEOLOGICAL IDENTIFICATION SURVEY

Prepared by:
Coastal Carolina Research, Inc.
1601 St. Andrew Street
Tarboro, NC 27886

Prepared for:
STV/Ralph Whitehead Associates

Project #: 2513745
March 11, 2009

Rev. 01 – FINAL

ARCHAEOLOGICAL IDENTIFICATION SURVEY OF THE PROPOSED LYNX BLUE LINE EXTENSION, LIGHT RAIL PROJECT, CHARLOTTE AREA TRANSIT SYSTEM, MECKLENBURG COUNTY, NORTH CAROLINA

ER # 01-7527

PREPARED FOR:

STV/RALPH WHITEHEAD ASSOCIATES
1000 WEST MOREHEAD STREET, SUITE 200
CHARLOTTE, NORTH CAROLINA 28208-5358

PREPARED BY:
DENNIS C. GOSSER, MA, RPA
PRINCIPAL INVESTIGATOR
BILL HALL
AND
LORETTA LAUTZENHEISER, RPA

COASTAL CAROLINA RESEARCH, INC.
P.O. BOX 1198
1601 SAINT ANDREW STREET
TARBORO, N.C. 27886

MARCH 11, 2009

ARCHAEOLOGICAL IDENTIFICATION SURVEY OF THE PROPOSED LYNX BLUE LINE EXTENSION, LIGHT RAIL PROJECT, CHARLOTTE AREA TRANSIT SYSTEM, MECKLENBURG COUNTY, NORTH CAROLINA

ER # 01-7527

MANAGEMENT SUMMARY

Coastal Carolina Research, Inc. (CCR), conducted an archaeological identification survey for the proposed LYNX Blue Line Extension Northeast Corridor Light Rail project in Charlotte, Mecklenburg County, North Carolina. The Northeast Corridor, located between the Charlotte city center and the Mecklenburg / Cabarrus County line, extends approximately 10.6 miles following North Tryon Street and the North Carolina Railroad (NCRR) right-of-way. The southern portion of the corridor is located in an urban setting of Charlotte. The corridor also passes through the North Charlotte and University City activity centers, which are characterized by extensive commercial development. The proposed Locally Preferred Alternative (LPA) generally follows existing disturbed right-of-ways and includes one option for the transition to North Tryon Street (the Sugar Creek Design Option). The proposed project includes 6 walk-up and 7 park-and-ride stations. The total area included in the Area of Potential Effects (APE) is approximately 237 acres.

The purpose of the identification survey was to determine if archaeological resources that are listed in, eligible for, or potentially eligible for the National Register of Historic Places (NRHP) are located within the APE. The archaeological survey was conducted for STV/Ralph Whitehead Associates and the Charlotte Area Transits/City of Charlotte in compliance with Sections 106 and 110 of the National Historic Preservation Act of 1966, the Advisory Council on Historic Preservation's regulations for compliance with Section 106, codified as 36 CFR Part 800, and Section 4(f) of the Department of Transportation Act. (A portion of the survey was conducted under a previous contract with Parsons Transportation Group). The scope of the investigations was consistent with the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*. The archaeological report conforms to the report guidelines issued by the North Carolina Office of State Archaeology of the State Historic Preservation Office.

Background research indicates that two previously recorded precontact Native American sites, 31MK149 and 31MK168, were located within the APE but were destroyed in the 1970s by development. One new archaeological site, a mid-nineteenth-century to twentieth-century historic house (31MK1075), was recorded as a result of the survey. However, the site was recorded within a proposed station location that has been removed from the current APE and will not be affected by the current undertaking. The description of site 31MK1075 is included here as Appendix D. Given the results of the investigation, no new or previously recorded sites on or eligible for the NRHP will be affected by the project, and no further archaeological research is recommended.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION

Coastal Carolina Research, Inc. (CCR), conducted an archaeological identification survey for the proposed LYNX Blue Line Extension Northeast Corridor Light Rail Project in Charlotte, Mecklenburg County, North Carolina (Figures 1-1 and 1-2). The Northeast Corridor, located between the Charlotte City Center and the Mecklenburg Cabarrus County line, includes approximately 10.6 miles following North Tryon Street and the North Carolina Railroad (NCRR) right-of-way.

The southern portion of the corridor is located in an urban setting of Charlotte. The corridor also passes through the North Charlotte and University City activity centers, which are characterized by extensive commercial development. The proposed Locally Preferred Alternative (LPA) generally follows existing disturbed right-of-ways and includes one option for the transition to North Tryon Street (the Sugar Creek Design Option). The proposed project includes 13 walk-up or park-and-ride stations. The Area of Potential Effects (APE) excludes those portions of the proposed corridor following the disturbed NCRR right-of-way (ROW) and the disturbed right-of-way for North Tryon Street (Appendix A). The APE does include the following:

1. the portion of the Sugar Creek Design Option that transitions from the NCRR to North Tryon Street;
2. the portion of the LPA alignment that transitions from the NCRR to North Tryon Street;
3. the portion of the LPA alignment that egresses east from North Tryon Street to Lot 25 on the UNC Charlotte campus and then turns north with an ingress back onto North Tryon Street approximately 1,000 ft northeast of Mallard Creek Church Road;
4. the portion of the I-485 North Extension running parallel to North Tryon Street;
5. 18 proposed grade separations; and,
6. the proposed stations and parking facilities, which include (south to north) 9th Street Station; Parkwood Station; 27th Street Station; 36th Street Station; Sugar Creek Station Option 1 (LPA); Sugar Creek Station Option 2 (Sugar Creek Design Option); Old Concord Road Station Option 1 (LPA); Old Concord Road Station Option 2 (Sugar Creek Design Option); Tom Hunter Station; University City Blvd Station; McCullough Station; JW Clay Blvd Station; UNC Charlotte Station; Mallard Creek Church Station; and, the I-485/North Tryon Station.

In addition to the above noted areas, the current study reports on several areas previously proposed for either station locations or park-and-ride lots that were subsequently removed from consideration. The total area considered as part of the current study included approximately 237 acres.

The purpose of the identification survey was to determine if archaeological resources that are listed in, eligible for, or potentially eligible for the National Register of Historic Places (NRHP) are located within the APE. The archaeological survey was conducted for STV/Ralph Whitehead Associates, and the CATS/City of Charlotte in compliance with Sections 106 and 110 of the National Historic Preservation Act of 1966; the Advisory

Council on Historic Preservation's regulations for compliance with Section 106, codified as 36 CFR Part 800; and Section 4(f) of the Department of Transportation Act. (Portions of the study area were surveyed under a previous contract to Parsons Transportation Group.) The scope of the investigations (Appendix A) was consistent with the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*. The content of the archaeological report conforms to the guidelines issued by the North Carolina Office of State Archaeology (OSA) of the State Historic Preservation Office (SHPO).

Prior to initiating fieldwork, CCR applied for and obtained an Archaeological Resources Protection Act (ARPA) permit from UNC Charlotte (Permit Date August 22, 2008; authorization under Phil Jones, UNC Charlotte; Appendix B). The ARPA permit allowed archaeological fieldwork consisting of surface collection, systematic shovel testing, and excavation of test units at each site.

The field survey was conducted in several components: between November 30 and December 2, 2005; on March 16, 2006; between November 10 and November 13, 2008; and between December 29 and 31, 2008. The field portion of the project required 38 person days to complete. Loretta Lautzenheiser, Registered Professional Archaeologist (RPA) was the Project Manager and Susan E. Bamann, Ph.D., RPA and Dennis C. Gosser, RPA were the principal investigators. Bill Hall conducted the background research at OSA; Loretta Lautzenheiser, Susan Bamann, Dennis Gosser, and Robert “Budd” Patterson supervised the fieldwork; and Nathan Scholl, Michael Tutwiler, Scott Johnson, Kevin McKinney, Lindsay Flood, and Blake Wiggs were the field technicians. The artifacts were analyzed by Susan Bamann, and the laboratory processing and site form preparation was completed by Denise Haynes.

CCR would like to thank Scot Seibert of STV/Ralph Whitehead Associates and Jeff Tokarczyk of Mulkey Engineers and Consultants for compiling and creating the graphics.

Figure 1-1
General Location of Project Area

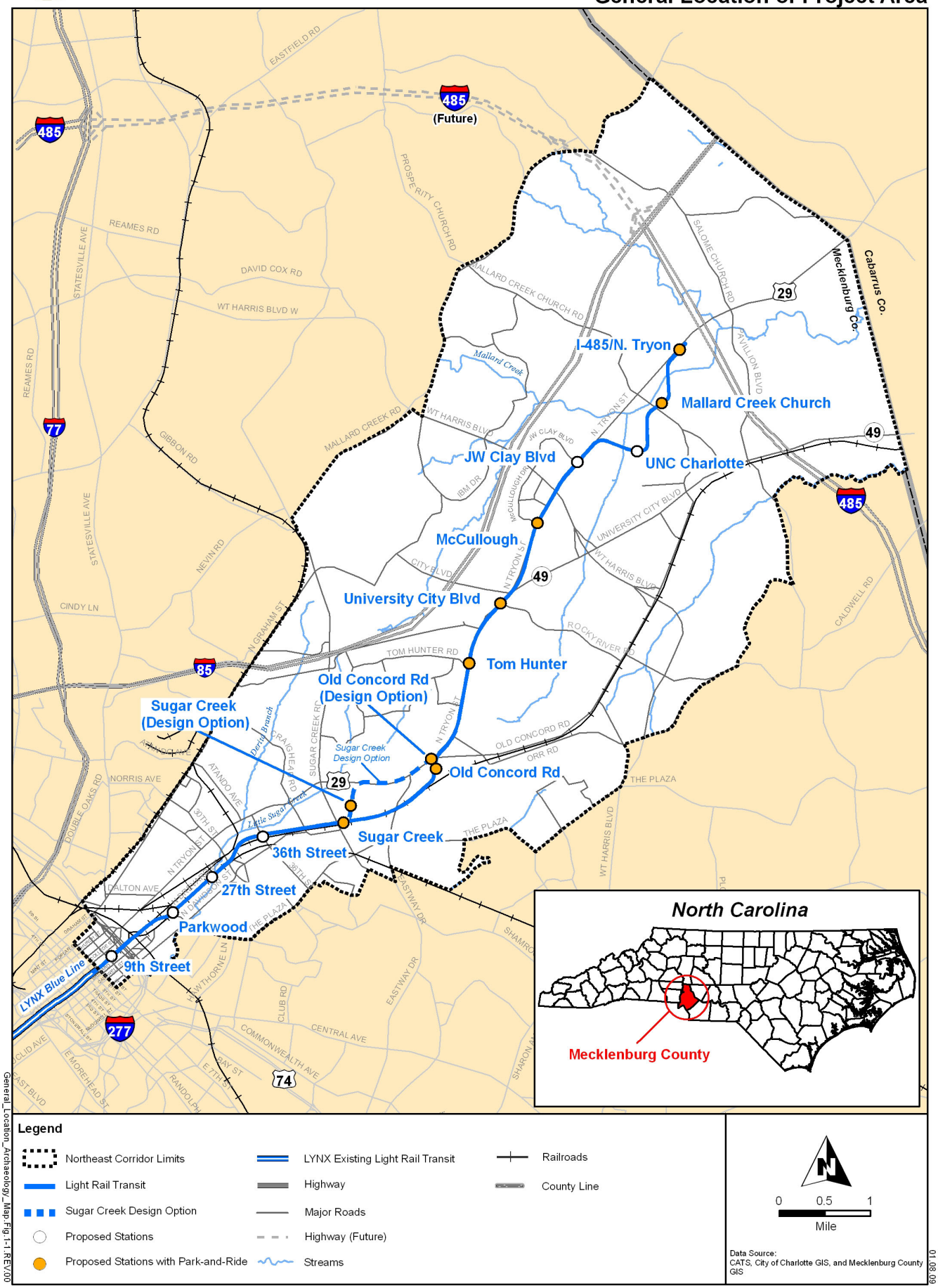
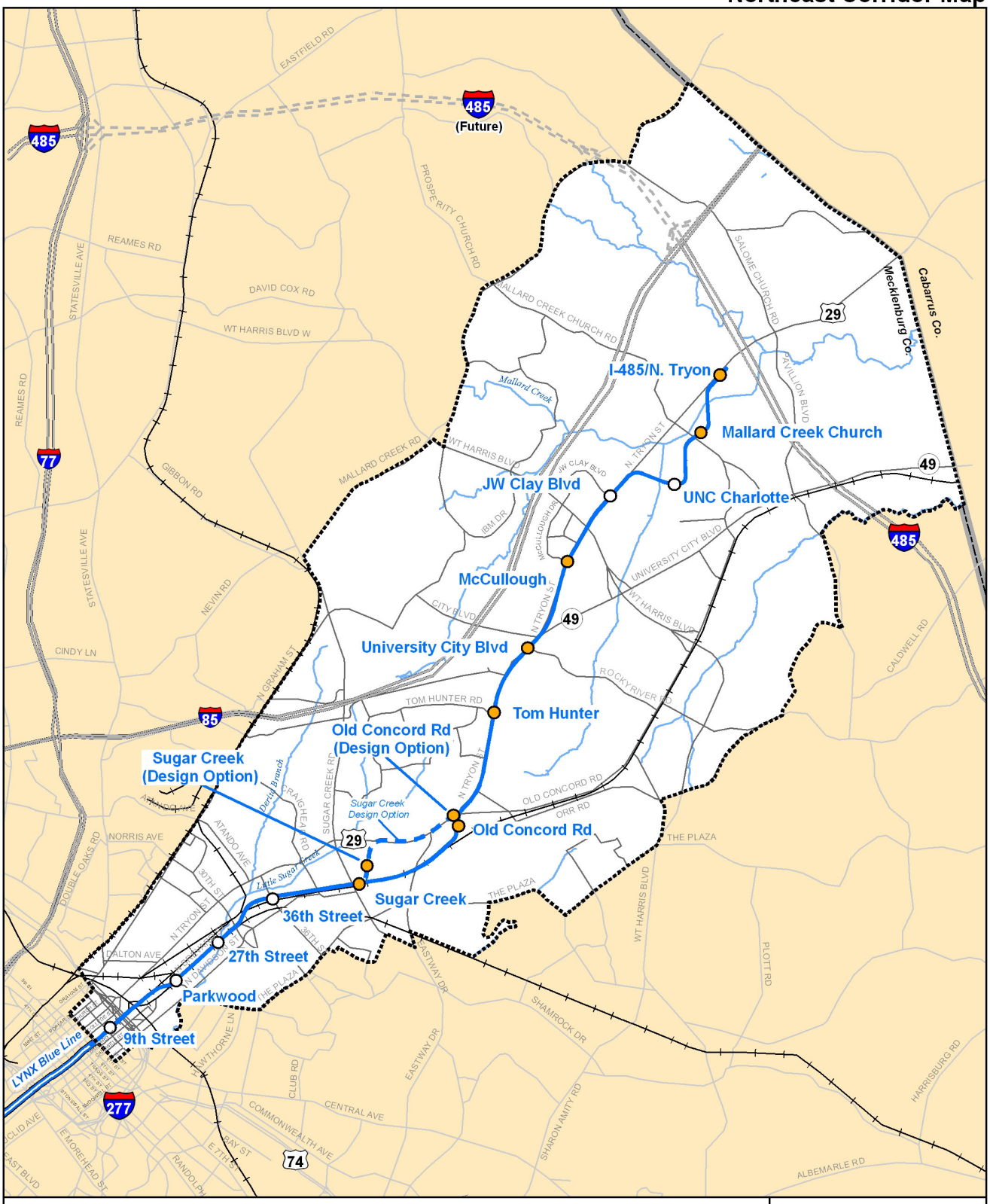


Figure 1-2
Northeast Corridor Map



2. NATURAL SETTING

2.1 Physiography

The project is located in the Piedmont physiographic region. The Piedmont province is the nonmountainous portion of the older Appalachians and generally slopes from the mountains to the Coastal Plain. Structural control of drainage is usually absent, and the rivers of the Carolinas flow in an unaltered pattern across belts of granite, gneiss, schist, and slate (Fenneman 1938). The typical Piedmont landscape is gently rolling, except where it is dissected by stream valleys with steeper slopes. Occasional, isolated monadnocks of erosion-resistant rock rise above the Piedmont surface (Fenneman 1938; Thornbury 1965). Long-term weathering has left much of the region covered by a deep layer of saprolitic soil (Thornbury 1965).

2.2 Geology and Mineral Resources

The project area is located within the Charlotte Belt, which is primarily composed of igneous and meta-igneous rock, as well as intrusive rocks that are typically classified as premetamorphic or syn- to post-metamorphic rocks (NCGS 1988). Rocks of the Charlotte Belt have a higher metamorphic grade and are "sandwiched in between lower grade rocks of the Kings Mountain Belt and the Carolina Slate Belt" (NCGS 1988:60). For most of the corridor the bedrock consists of intrusive metamorphosed quartz diorite. A small section near the intersection of US-29 and NC-49, however, crosses metavolcanic bedrock that includes mafic tuffs and tuff breccias as well as felsic rock (NCGS 1985, 1988).

Gold-bearing ores are present in the Charlotte Belt (Carpenter 1993). These ores are found in both lode and placer deposits. Lodes are either veins or mineralized zones. Most veins are narrow with variable length, and they generally trend to the northeast. Placer deposits are found in present stream channels, in old stream gravel, or in residual deposits. These deposits are most usually found where streams of moderate gradient begin to widen or change direction and the flow of water begins to slow. They are also found in gravel beds and inside bends of stream channels (Carpenter 1993).

2.3 Soils

The project area crosses three soil associations, as described in McCachren (1980).

> *Cecil-Urban land*: This soil unit is found in the interior of downtown Charlotte, as well as the city's outer edges. The subsoil for this unit is primarily clayey. Urban development, including commercial, industrial, and residential, is almost the sole use for this soil unit.
>
> *Monacan*: This nearly level soil unit is found throughout Mecklenburg County paralleling streams and drainageways. The main limitations of this soil unit are wetness and flooding that can limit, but not preclude, farming. Cropland and pasture are the primary uses of this soil unit.

Wilkes-Enon: This well-drained soil unit is found on topography ranging from gently sloping to steep. The main uses for this soil unit are pasture and woodland, though some of the gentler slopes may be farmed. Slope and associated erosion, as well as bedrock depth limit agricultural use of this unit.

The southern Piedmont is one of the most severely eroded areas in the United States, and it has been estimated that the North Carolina Piedmont as a whole has lost at least 13.97 cm (5.5 in) of soil since it was settled by Europeans (Trimble 1974). Based on Erosive Land Use (ELU) practices, the Southern Piedmont has been divided into regions. Mecklenburg County has been placed into Region III (the Cotton Plantation Area).

In the period from 1750 to 1810, ELU practices in Region III increased dramatically, especially after the cotton gin became widely available. From 1810 until 1860, these practices continued to increase, and the area underwent accelerated clearing and intensive cultivation, followed by abandonment when the soils in the area became too depleted to sustain cotton cultivation. Increased use of fertilizers in the late nineteenth century allowed continued use of some cotton lands, causing further erosion. After the turn of the century, much of the land in this region was abandoned and converted to pasture or forest (Trimble 1974).

2.4 Hydrology

The proposed alignment crosses a divide between two major river basins. The southern portion of the project is in the Catawba drainage basin. It is drained by Little Sugar Creek, which flows southward into Sugar Creek and eventually the Catawba River. The northern portion of the project, which is drained by tributaries of Mallard Creek and the Rocky River, is within the Yadkin-Pee Dee drainage basin.

2.5 Vegetation

The project area is located in the Oak-Pine Forest Region, which is roughly coextensive with the Piedmont (Braun 1950). Oaks and hickories are the most common and widespread trees and, except on the poorer soils and drier spots, pines are usually temporary and are ultimately replaced by deciduous species.

3. HISTORIC CONTEXT

3.1 Paleoindian Period

Native American occupation of eastern North America dates to at least the Paleoindian period, which is thought to have begun by approximately 11,500 B.C. The evidence for Paleoindian occupations at this time includes fluted projectile points (i.e., Clovis and Cumberland points) (Griffin 1967; Justice 1987). These points are generally scarce and often come from disturbed surface contexts. Recent evidence for much earlier New World lithic industries suggests that the makers of fluted points may represent relatively late migrations to the New World. Alternatively, the distinct fluted point technology may have developed within the New World in the context of populations established prior to10,000 B.C. (Meltzer 1989; Anderson and Faught 1998). At least 444 fluted projectile points have been reported from North Carolina and nearly 1,000 from Virginia (Anderson and Faught 1998). During his survey of classic fluted projectile points from North Carolina, Perkinson (1971, 1973) reported only one specimen from Mecklenburg County.

The most important excavated site in North Carolina yielding Paleoindian components is the Hardaway site, located on the west bank of the Yadkin River in Stanly County. This site is unusual in that it contains stratified deposits including Paleoindian materials. Investigations at the Hardaway site form the basis of the Paleoindian and Early Archaic sequences defined by Coe (1964) for the Piedmont. The classic fluted Clovis projectile point was not recovered from the Hardaway site, but is thought to be contemporary with the Hardaway phase (Ward 1983). The Hardaway phase, dating to at least 8000 B.C., represents the earliest occupation of the Hardaway site. The Hardaway and Hardaway-Dalton projectile point types are characterized by broad, thin blades with concave bases. The Hardaway-Dalton type has a deeply concave base and shallow side-notches (Coe 1964).

Most researchers believe that the subsistence pattern of the Paleoindian period was based on generalized foraging and the exploitation of seasonally available resources (Ward and Davis 1999). Investigations at Paleoindian sites in the Southeast have demonstrated a uniformity of tool types for the period. Work at the Adams site, a single-component Paleoindian site in western Kentucky, has resulted in the compilation of a complete sequence of Clovis point manufacture. Tools for bone- and woodworking and a variety of scraping, cutting, chopping, shredding, and planing tools were present (Sanders 1988).

Excavations at the Haw River sites indicate that the tool kits from the Late Paleoindian and Early Archaic times are similar (Claggett and Cable 1982; Cable 1996). In reexamining the lithic assemblage from the Hardaway site, Daniel (1998) has identified a projectile point form that appears to be transitional between Hardaway and Palmer points, sharing characteristics of both. These transitional points are referred to as Small Daltons, reflecting “their similarity to points of the widespread Early Archaic Dalton culture of the Midwest and southeastern United States” (Ward and Davis 1999:53).

3.2 Archaic Period

The Archaic period (8000-1000 B.C.) was apparently a time of climatic change. A shift from boreal forests to northern hardwoods occurred around the time of the Early Archaic period (8000-5000). During the early part of this time, a cool, moist climate prompted the expansion of species-rich Mixed Hardwood Forest in the eastern United States. During the Hypsithermal phase, the Oak-Chestnut Forest became dominant in the central and southern Appalachians, oak and hickory were replaced by southern pine on the Coastal Plain, and the Oak-Hickory-Southern Pine Forest covered the Piedmont (Delcourt and Delcourt 1985; Delcourt and Delcourt 1981). These changes were probably accompanied by an increase in population, as seen in the greater number of sites with Archaic components (Phelps 1983). It is generally thought that in the Archaic period there was a continuation of the hunting and gathering lifestyle, with a possible round of seasonal movement between base camps and hunting camps.

The Early Archaic Palmer phase is typified by a small corner-notched blade with a straight, ground base and pronounced serrations. The Palmer complex is indicative of possible affiliations with cultures to the north, extending into New England (Coe 1964). During the Kirk phase the points increased in size and basal grinding declined. A broad-stemmed, deeply serrated point gradually replaced the earlier corner-notched style. The decrease in basal grinding characteristic of later Kirk projectile points is indicative of cultural affiliations to the west (Coe 1964). The use of hafted end scrapers also increased during this period (Coe 1964; Davis and Daniel 1990). The depth of the Kirk midden at the Hardaway site indicates a long-term habitation (Coe 1964).

During excavations at Icehouse Bottom in Tennessee, a bifurcated base or stem projectile point tradition was stratigraphically isolated between the Early Archaic Kirk and the Middle Archaic Stanly traditions (Chapman 1977). No major shift in the artifact assemblage was observed except for the presence of St. Albans Side-Notched and LeCroy Bifurcated Stem projectile points. The bifurcate tradition was not identified at the Hardaway site, though more recent investigations along the Haw River in Chatham County have confirmed its stratigraphic placement in North Carolina (Claggett and Cable 1982).

Chapman's work in Tennessee also provided direct evidence for the production and use of textiles in the Early Archaic period. The evidence was in the form of basketry and woven fiber bag impressions from a prepared clay hearth. The context in which they were found can be firmly dated to the Early Archaic (Chapman 1977).

The Middle Archaic Stanly phase appears to have developed out of the preceding phases and is the earliest clearly documented occupation at the stratified Doerschuk site (31MG22) in Montgomery County (Coe 1964; Phelps 1983). The major difference in the artifact assemblage seems to be the appearance of polished stone atlatl weights.

The Morrow Mountain and Guilford phases also appear during the Middle Archaic period (5500-3000 B.C.). Coe (1964) considers these phases to be without local technological precedent and views them as western intrusive horizons. Morrow Mountain projectile points are relatively small with a short, tapering stem. Davis and Daniel (1990) date these points to about 5500-5000 B.C. The analysis of material from the Haw River sites suggests that the Morrow Mountain I and II type points may actually represent the

continuation of the stemmed point tradition (Claggett and Cable 1982). Claggett and Cable (1982:485) note a trend toward contracting stems beginning with the Stanly tradition and "culminating with the extreme stem contraction that characterizes the Morrow Mountain cluster."

Guilford projectile points, which represent "a potentially anomalous situation in the overall Piedmont sequence" (Claggett and Cable 1982:39), are found in two forms: a lanceolate variety, the most commonly recovered, and a form with a weakly developed stem. According to Davis and Daniel (1990), these date to about 5000-4000 B.C. The Guilford type has been described as "a thick, lanceolate bifacial cutting or piercing implement that apparently interrupts the Archaic development trend from notched to stemmed points (Claggett and Cable 1982:39). The apparent deviation in development is all the more noteworthy when the Late Archaic Savannah River projectile point, which represents clear evidence of a return to the Archaic developmental continuum, is considered. A recent study, however, has used mixed deposits and transitional forms from the Lowders Ferry site (31ST7) to question the interpretation of Guilford and Morrow Mountain points as representing intrusive traditions (Drye 1997). Even more recently, the recovery of Savannah River, Morrow Mountain, and Guilford points from the same undisturbed strata at a site in Randolph County (31RD1166) provides some evidence of cultural continuity during the Archaic period (Lautzenheiser et al. 1999).

The Halifax phase was identified from the Gaston site (31HX7) on the Roanoke River, but did not appear at either the Hardaway or Doerschuk sites (Coe 1964). The Halifax point type, usually made of vein quartz, is a slender blade with shallow side notches. The base and side notches were usually ground. One projectile point with Halifax characteristics was recovered from the Middle/Late Archaic zone at a site on the Haw River (Claggett and Cable 1982). At the Gaston site, the Halifax zone occurs above Guilford material. The Halifax point is well represented from sites in the northern Coastal Plain (Claggett and Cable 1982). Coe (1964) has proposed a northern origin for the Halifax phase.

The end of the Archaic, or terminal Archaic, is marked by the Savannah River phase. During this time, there is evidence for larger sites containing steatite bowls, human burials, and prepared hearths. This evidence suggests a more settled lifestyle (Ward 1983). The Savannah River projectile point is a large, heavy, triangular blade with a broad stem (Coe 1964). In the Southeast, the Savannah River phase is associated with a riverine, shellfish-oriented adaptation. The full complement of Savannah River projectile points, steatite bowls and netsinkers, engraved bone pins, grooved axes, and atlatl weights is usually recovered from riparian sites. The earliest ceramics are noted during the terminal Archaic period and are dated to about 2500 B.C. (Ward and Davis 1999). These fiber-tempered wares are reported from at least 38 sites in the southern Coastal Plain, generally south of the Neuse River drainage (Phelps 1983).

A transition between the preceramic Archaic tradition and the Woodland period has been identified by Oliver (1985). A reanalysis of materials from the Doerschuk and Warren Wilson sites suggests that the Piedmont tradition of stemmed point types was continued into this transitional time. The Gypsy Stemmed Projectile point is placed within the earliest ceramic-bearing zone at these sites and is associated with large triangular points and cord- and fabric-marked ceramics.

3.3 Woodland Period

During the Woodland period (1000 B.C.-A.D. 1650), the beginnings of regional differences are noted. The introduction of the bow and arrow and of ceramic manufacture generally defines the beginning of the Early Woodland (1000-300 B.C.) in eastern North America. Other Early Woodland traits common to eastern North America, such as the cultivation of plants and the construction of burial mounds, appear later in Piedmont North Carolina. Cultivation of maize probably dates to around A.D. 1000 in the Piedmont. Burial mound complexes are essentially absent from the northern Piedmont (Hargrove et al. 1986).

The earliest expression of the Woodland tradition in the Piedmont is the Badin culture. It is characterized by hard, sandy ceramics and large, crude triangular projectile points. The differences between the southern and northern Piedmont traditions became more pronounced through time, and Badin assemblages are more commonly southern Piedmont phenomena. In general there is increasing diversity in the ceramic materials by the Late Woodland period (Ward 1983).

The Middle Woodland Yadkin phase was defined from the Doerschuk site. The ceramics appear to have evolved from the previous Badin type. The temper changed to a crushed quartz, which, in some cases, constituted 30 to 40 percent of the paste. The surface finishes were cord-marked or fabric-impressed. It was during this phase that influences from the southern coastal region first appear, with clay temper mixed with the quartz (Coe 1964). The projectile point type was the Yadkin Large Triangular point, which differed from the previous Badin style in that it was better made.

The Uwharrie ceramic series in the central and southern Piedmont represents a late Middle Woodland/early Late Woodland outgrowth of the Badin and Yadkin ceramic traditions (Coe 1952; Eastman 1994). Uwharrie ceramics are marked by abundant fragments of crushed quartz temper. Portions of a Uwharrie vessel, recovered from a feature at the Donnaha site (31YD9) in northern Yadkin County, were found in association with charcoal fragments that provided a C-14 date of A.D. 1480 (Woodall 1984). The Uwharrie projectile point type is a small, slender triangle. In the sample of 104 Uwharrie points recovered from this site, 98 percent were manufactured from felsite (Woodall 1984). Uwharrie subsistence involved mixed wild food utilization and agriculture (Ward 1983).

Late Woodland Dan River ceramics in the central and southern Piedmont probably developed out of the preceding Uwharrie phase (Coe 1964). The Dan River wares may contain both crushed quartz and coarse river sand inclusions. At the Donnaha site, the proportion of quartz to sand changed through time. At the lower part of the midden at this site, most sherds contained only sand inclusions (Woodall 1984).

3.4 Late Prehistoric Mississippian Influence

During the Late Woodland period in the southern Piedmont, a group of people from present-day South Carolina or northern Georgia migrated into the upper Pee Dee River Basin, bringing with them a more complex cultural tradition and Lamar ceramic styles of the South Appalachian Mississippian tradition (Ward and Davis 1999). Oliver (1993) presents a revised cultural and chronological sequence for what is referred to as the late

prehistoric Pee Dee culture. The revised sequences are based primarily upon the results of excavations and radiocarbon dates from the Leak site (31RH1) in Richmond County and the Teal site (31AN1) in Anson County. The revised chronological sequence divides the Pee Dee cultural period into the Teal phase (A.D. 950-1200), the Town Creek phase (A.D. 1200-1400), and the Leak phase (A.D. 1400–1600). Oliver defines these phases as the developmental, florescent, and terminal phases. Ward and Davis (1999) use calibrated radiocarbon dates to place the end of the Leak phase at approximately A.D. 1500 instead of A.D. 1600.

The Town Creek site in Montgomery County (31MG2 and 31MG3), which includes a large plaza, a temple mound, a stockade, and numerous burials, represents the florescent phase of the Pee Dee tradition and was a residential/ceremonial center with governing elites. The riverside community was supported by maize agriculture as well as continued hunting and gathering. Pee Dee ceramics include a variety of forms including cazuela bowls (shallow vessels with broad shoulders and inverted rims). Burnished surfaces, complicated-stamped designs (e.g., concentric circles and filfot crosses), and textile impressions are common in the Town Creek assemblage (Ward and Davis 1999). Projectile points recovered from the site include Pee Dee Triangular, Pee Dee Serrated, and Pee Dee Pentagonal (Coe 1995). The Pee Dee Pentagonal type, which is described as a small point carelessly made on a thin primary flake (Coe 1964), was the most frequently recovered triangular type (Coe 1995). Mortuary goods include earspools, pendants, rattles, and axes made from imported Great Lakes copper; shell beads, gorgets, and pins from coastal shell sources; and carved stone and clay pipes (Coe 1995; Ward and Davis 1999).

The Leak site grew in importance in conjunction with the decline of the center at Town Creek. The ceramic tradition remained similar with complicated-stamped designs, textile-impressed surfaces, and cazuela bowls increasing in popularity. Both corn and beans were grown in the floodplain areas surrounding the site (Ward and Davis 1999). Three other large village sites have been identified along the eastern bank of the Pee Dee River near the Leak site (Oliver 1993).

3.5 Protohistoric Period

The Protohistoric period refers to the time of incipient Native American contact with early European explorers. In specific areas, the Protohistoric dates to as early as the time of Spanish exploration in the mid-1500s. In other areas of the Southeast, the Protohistoric was initiated by English exploration in the later 1500s and early 1600s (Merrell 1989). The Protohistoric era can be characterized as a time of transformation, marked by adaptation to opportunities and effects related to the presence of a new culture.

The Caraway tradition (A.D. 1500 to 1700) developed in the southern Piedmont from preceding Late Woodland traditions and Pee Dee influence. The tradition was first recognized at the Poole site (31RD1) in Randolph County. Investigations at this village site revealed refuse pits and numerous burials (Ward and Davis 1999). The site was thought to be the Keyauwee village visited by English explorer John Lawson in 1701 and is also known as the Keyauwee site. Historic artifacts (glass beads and kaolin pipe fragments) were recovered from one refuse pit, but Ward and Davis (1999) emphasize that most of the features and burials date to precontact times.

During the Protohistoric and following historic period, the Catawba Indians occupied much of the southern Piedmont. The Catawba were a Siouan-speaking group who later formed a confederacy with groups such as the Sugeree and the Waxhaw (Hudson 1970), but their precontact/protohistoric origins and identity are poorly understood by archaeologists. Moore (2002) has recently drawn a distinction between the Catawba Valley Mississippian traditions and sixteenth-century protohistoric Catawba sites, and he appears to favor a model of Catawba origins involving upper and middle Catawba Valley depopulation and amalgamation of groups within the lower Catawba Valley. Late Catawba ceramics include a hard, burnished ware that is probably a descendant of the burnished Mississippian ceramics of the Burke and Cowans Ford series (Moore 2002). By the early 1700s, the Catawba were middlemen in the Virginia trade, supplying groups in the southern Carolina backcountry and probably the Cherokee as well (Lawson 1967 [1709]). Much of the Catawba's autonomy and political power was lost by the termination of the Yamassee War in 1716, and following the war they became a satellite of the South Carolina colony (Hudson 1970).

3.6 Early European Explorations

The first major European exploration that extended deep into the interior of the southeastern United States was the De Soto expedition of 1539 to 1543 (Swanton 1939). The expedition landed in Florida in May 1539 and shortly began traveling north through Georgia, South Carolina, and North Carolina. Although numerous interpretations of the De Soto route have been advanced, one of the most detailed was that of the De Soto Commission formed in 1935 to study the route (Swanton 1939).

The commission, using the best available documents, suggested a route through Highlands, North Carolina, continuing along the Cullasaja River to its junction with the Little Tennessee River at Nequassee, or Franklin. The trail followed the Little Tennessee south to Cartoogechaye Creek, followed the creek west to its headwaters, then passed through the mountain gap to the Hiwassee River (Swanton 1939).

However, more recent studies argue against this route (Hudson et al. 1984), citing archaeological data that were unavailable to Swanton. The Hudson group supports a route that entered North Carolina west of present–day Charlotte, passed near present-day Lincolnton, then moved on to the town of Guaquili in the vicinity of present-day Hickory. The town of Xuala, in a plain among several rivers, is assumed to have been in the vicinity of Marion. After leaving Xuala, De Soto's troops climbed a high ridge, possibly Swannanoa Gap, finally reaching the headwaters of the French Broad River near present-day Asheville.

Regardless of the exact route of the De Soto entrada, the effects of the contact with the Europeans were felt throughout the region. The natives are thought to have suffered a "cataclysmic decline in population" after their exposure to Old World pathogens (Smith 1987:4). However, whether or not the initial period of sixteenth-century European contact resulted in pandemics and widespread population collapse is a debated issue. Some of the complex chiefdoms of the southeast were already in political decline before European contact, and evidence for large-scale population decline is lacking at early historic sites in the Appalachian Summit and Piedmont regions (Ward and Davis 1999).

European explorations into the northern Piedmont of North Carolina had begun by the late 1600s. In 1669, a young German physician, John Lederer, was commissioned by Governor Berkeley to make discoveries to the west of the Virginia colony. Lederer's second journey, begun in May 1670, was due west to the mountains, where he parted company with his military escort and turned south and west (Cumming 1958). He at times followed a well-beaten path and at others crossed the rocks and hills. He traveled south as far as the Catawba lands before returning to Virginia (Cumming 1958).

The impetus for many of the early travels was to establish the feasibility of trade with the Indians. Lederer was responsible for opening up the trade route between Virginia colonists and the Native Americans of the western Carolinas. The trade route was originally referred to as the Occoneechee Trail and later as the Catawba Trading Path or Path to the Cherokee. During the early years of exploration the Occoneechee Trail was the most important Piedmont roadway (Blythe and Brockmann 1961).

The appointment of John Lawson to make a survey of the Carolinas in 1700 resulted in a more detailed description of the interior. In 1701, Lawson left Charleston, South Carolina, traveling north. He entered North Carolina near Waxhaw and began following the Trading Path northeast. The party passed through many towns and settlements, "no barren Land being found amongst them, but great plenty of Free-Stone, and good Timber" (Lawson 1967 [1709]:49).

3.7 Early Settlement

Prior to the time of the earliest settlements, the valleys of the South Ford and Catawba rivers were a "primal wild . . . . [T]hese fertile stretches with vitalizing mountain air and invigorating mineral water, were the habitat of red man and wild animal" (Nixon 1912:29).

The first settler of the Mecklenburg area is traditionally thought to have been Thomas Spratt. He moved with his family from Pennsylvania and first settled on the Rocky River around 1740 (Blythe and Brockmann 1961). The settlers from Pennsylvania moved down the Great Wagon Road. The road was described by Colonel Sanders in the Colonial Records:

> The route these immigrants from Pennsylvania took to reach their future homes in North Carolina is plainly laid down on the maps of that day. On Jeffrey's Map . . . there is plainly laid down a road called "The Great Road from the Yadkin Valley thro' Virginia and Pennsylvania to Philadelphia, distant about 435 miles." It ran . . . down the [Staunton] river through the Blue Ridge, thence southward crossing Dan River below the mouth of Mayo River, thence still southward near the Moravian settlement to the Yadkin River, just above the mouth of Linville Creek, and about ten miles above the mouth of Reedy Creek [Nixon 1912:13].

They settled beside streams and near springs. Locations near springs were not only for ease in obtaining water, but for better enabling the settler to withstand an Indian attack. Some houses were built over the springs, and some had secret underground passages to the water (Nixon 1912).

When the first settlers entered the area, it was part of Bladen County. Formed in 1734, Bladen County featured western borders that were the "Bounds of the Government." By 1750, settlement in the western lands had intensified to a point that Anson County was formed for the convenience of those already living in the territory. In 1762, the area was further subdivided, and Mecklenburg County was created. The county was named in honor of Queen Charlotte of Mecklenburg (Corbitt 1950).

The homes of early Charlotte settlers were one-room cabins built of sawed or hewn logs with mud and/or straw chinking. Most chimneys were made from stone, though some were brick. Roofs were made from clapboard that was held in place using homemade nails (Blythe and Brockmann 1961).

By 1766, the area was being rapidly settled. Mecklenburg County had a population of 5,000 in 1766, a figure that grew to 6,000 within two years (Tompkins 1903).

At this time the Catawba Indians were still living in the Mecklenburg County area. A source from the early 1900s (Tompkins 1903) states that the Catawba Indians had 240 to 300 warriors in 1755. After a 1760 smallpox epidemic, that number was reduced to 60 "old men and boys and a suitable number of women" (Tompkins 1903:98). Blythe and Brockmann (1961) estimate that the Catawba had a total population of about 5,000 in 1700 and were reduced to less than 1,000 by the 1760s.

By 1763, after alternating periods of peace and conflict, Mecklenburg County settlers reached a land agreement with the Catawba. The tribe was allotted a small reservation tract spanning seven miles on either side of the Catawba River, just south of Charlotte and partially in South Carolina. This reservation was referred to as the "Indian Nation" or the "Catawba Nation" (Blythe and Brockmann 1961).

3.8 The Revolutionary War

The Mecklenburg area was very involved in the events that led up to the American Revolution. In May 1775, the "safety committee" of Mecklenburg County, in addition to spreading Whig propaganda and making military preparations, issued the Mecklenburg Resolves. In this declaration of independence, signers sought to "dissolve the political bonds which connected [them] with the mother country and absolve [them]selves from all allegiance to the crown" (Alexander 1902:27). In recent years the legitimacy of the Resolves has been disputed, but they nevertheless still have a prominent place in the county's history.

The area became directly involved in the Revolutionary War in 1780 when Cornwallis's troops were poised to enter North Carolina. General Davidson had taken over Rutherford's command after his capture at Camden. Davidson and Davie, with their inferior forces, were all that opposed the entry of Cornwallis into the state. They mounted a campaign of harassment, capturing spies and small foraging parties. Davidson camped at McAlpine Creek, eight miles south of Charlotte, with 400 men. The Colonial troops had joined in Charlotte on September 25, and on the 26th, Cornwallis's advance guard entered. The British were met by a hail of gunfire from the Patriots, who repulsed three charges before retreating in the face of the main army. Cornwallis named the town the "Hornet's Nest" (Tompkins 1903).

3.9 Antebellum Period

The Treaty of Nation Ford was reached in March of 1840, and the Catawbas agreed to turn over their land to the state. In exchange, the state agreed to spend $5,000 to purchase a new tract of land for them to live on. This new tract would be located near the Cherokee in a more "mountainous or thinly populated region" (Merrell 1989:249). The state agreed to pay the Catawbas $2,500 in cash upon leaving the land they currently occupied, followed by $1,500 a year for the next nine years (Merrell 1989).

Mecklenburg County was at the northeastern fringe of the antebellum Cotton Belt. In 1849, the county produced 4,219 bales, or 4 percent of the cotton in the state. The county was primarily rural, with 68 percent of the households owning or operating farms. Many of the farms were staffed with slave labor, and slaves accounted for 39 percent of the population (Hoffman 1988:7). The economy was boosted by the completion of the railroad to Charlotte in 1852 (Tompkins 1903). The railroad also stimulated the development of small towns such as Pineville, which began with a depot and store and grew to include a cotton gin and yarn mill (Tompkins 1903; Blythe and Brockmann 1961).

3.10 Civil War and Postbellum Period

Mecklenburg County suffered no property damage during the Civil War, but did not escape unscathed. Eleven percent of the adult white males in the county died during the war, either from battle activity or disease (Hoffman 1988:108).

The railroad connections possessed by Charlotte made the city the unlikely home of the Confederate Navy Yard. In May 1862, the Confederate government realized that facilities in Norfolk were in danger. The Navy Yard was successful at its new location and continued to manufacture parts and ordinance for Confederate shipping throughout the war (Blythe and Brockmann 1961).

One of the prime concerns during the postbellum period was the establishment of new labor systems to replace the slave system. The tenant and sharecropping systems arose out of the breakup of the plantation system. By 1880, nearly 42 percent of the farmers in the county were tenant farmers (Hoffman 1988:144).

The chief crop in the postwar period was cotton. The production of cotton tripled in the county from 1870 to 1880. Textile mills and other mills expanded during this period. The railroads that crossed Mecklenburg County not only provided access to markets for cotton, but allowed ready access to the newly developed fertilizers that enabled the intensive cultivation of the cotton lands (Hoffman 1988:148).

A map of the county made in 1911 shows that the road which the study corridor follows was in place by that time (Figure 3-1). Along the road, labeled as "Salisbury Road," are several individual homes, as well as Hampton Church and the County Home. Also shown on the map is the Southern Railway, a segment of which is also part of the study corridor. Though the Mecklenburg County Home is no longer standing, the associated cemetery is located just to the east of the study corridor. The cemetery is located on the south side of W.T. Harris Boulevard directly across from the University City Regional Library. The 1911 map reveals that the County Home was built at least prior to the

creation of the 1911 map, but it was not until 1939 that the graves in the cemetery were marked. Individuals were buried in the cemetery as early as 1930. In 1939 money taken from the Poor Fund Emergency Fund was used to place markers on the graves. All of the grave markers face W.T. Harris Boulevard, and the graves are separated as a result of the segregation policy in place at the time. More than 100 graves are known to be located in the cemetery (Staff of the Carolina Room of the Public Library of Charlotte and Mecklenburg County 2005).

3.11 Gold Mines

The first documented discovery of gold in the United States occurred in 1799 on a farm in Cabarrus County. This find precipitated a gold rush into the region. Before 1828, all native gold coined in the United States came from North Carolina, which maintained its position as a leading producer until 1848, when gold was discovered in California (Funk 1979).

In the 50 years that North Carolina dominated gold production, nearly 4 million dollars worth of the mineral was mined in North Carolina. This exceeded the value of all other sources combined. In 1835, responding to demands from North Carolina miners, the United States authorized a mint at Charlotte. The mint was seized by Confederate forces during the Civil War and served as the military headquarters until 1865 (Blythe and Brockmann 1961:267).

The production of gold declined in the late 1850s in North Carolina and ceased entirely during the Civil War (Funk 1979). Only one mine, the Rudisill mine, remained in operation after the war. It finally closed down in 1900. The Depression spurred a revival of interest in the abandoned mines, and many were briefly reworked (Blythe and Brockmann 1961:269).

3.12 University of North Carolina at Charlotte

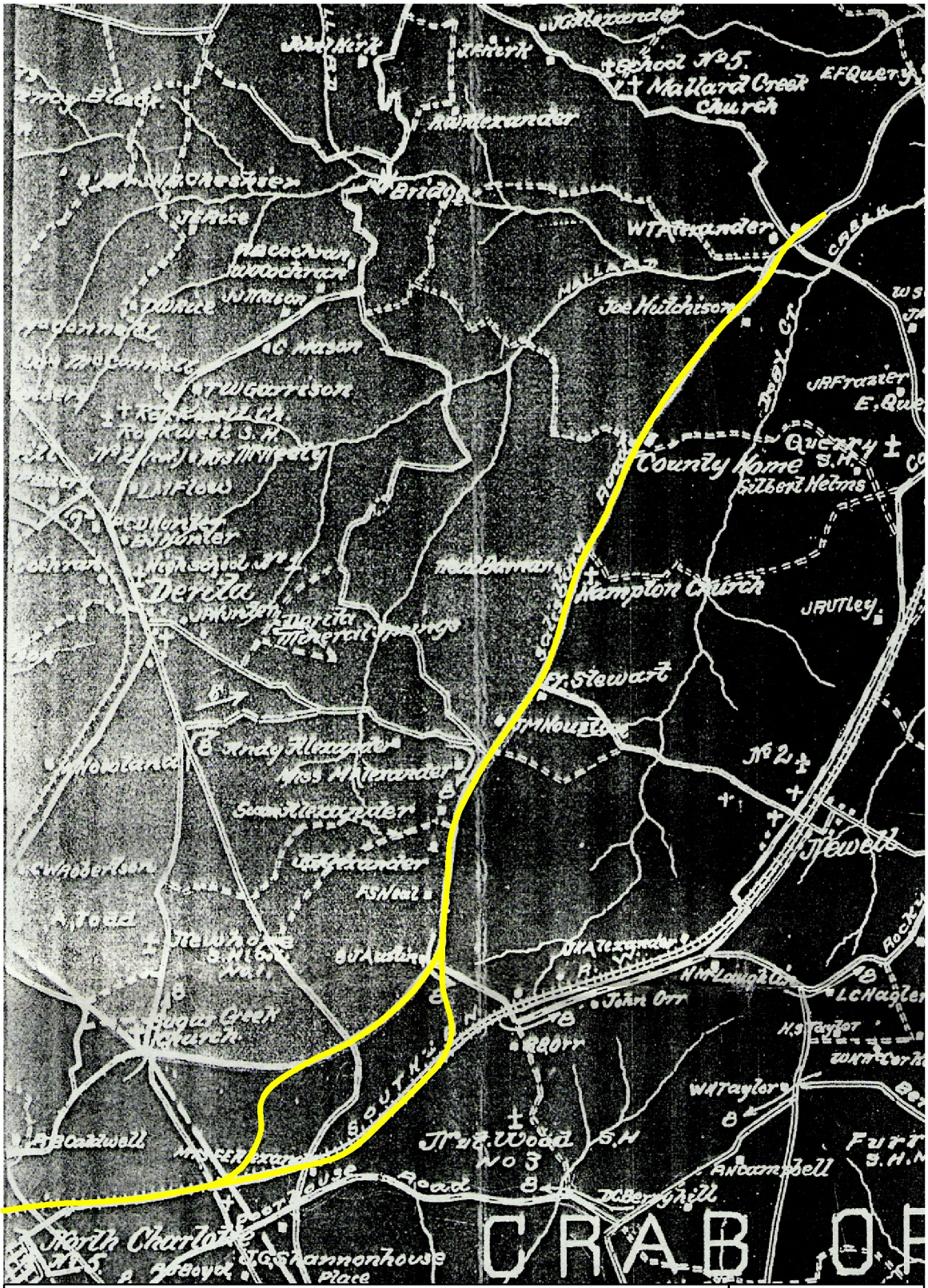
The University of North Carolina at Charlotte near the project area's northern terminus was originally a two-year college known as Charlotte College. The University of North Carolina opened Charlotte College in 1946 to aid in the education of veterans returning to the state after World War II. Charlotte College became part of the state community college system in 1958. Three years later Charlotte College moved to the current site of the University of North Carolina at Charlotte (Sanford 1969). This original tract of land of 270 acres was located along NC-49 (UNC Charlotte 1997). At this new location the small

two-year college began to grow. In 1963, Charlotte College became a state supported four-year school, and in 1965 Charlotte College became the University of North Carolina at Charlotte (Sanford 1969).

The University of North Carolina at Charlotte has continued to expand since its inception. The approval for the institution's first graduate program came in 1969 (UNC Charlotte 1997). The university made University City possible by forming University Research Park, University Place, and University Hospital (Sanford 1996). Building has continued throughout the school's history in order to keep pace with the ever-growing student body. In addition, the school now has off-campus programs available such as the Uptown Charlotte Center that opened in 1995 (UNC Charlotte 1997).

Figure 3-1

Northeast Corridor Map on 1911 Image



Approximate Study Corridor Route Alternatives Shown on 1911 Map of Mecklenburg County

Drawing Not to Scale

Data Source: RWA / STV, CATS, (Spratt and Spratt 1911).

Historic Arch Map Fig 3-1 REV 00.pdf

01.12.09

4. PREVIOUS ARCHAEOLOGICAL RESEARCH

Some of the first systematic archaeological excavations in the project area were undertaken by Fred Fischer and the University of North Carolina at Charlotte Department of Anthropology in the early and mid 1970s. Since then, a growing number of professional cultural resource management surveys have been conducted in Mecklenburg County. The growing number of recorded sites and cultural resource management reports has contributed to a better understanding of the history and prehistory of the region. Most of the sites discussed in the current report were recorded in the context of surveys conducted by Fred Fischer as well as by avocational collectors or land owners who reported findings to Fischer during the same time period. Sites discussed in the text are summarized in Table 4-1.

Table 4-1
Previously Recorded Sites in the Vicinity of the Current Project Area

Site Number	Component	Previous NRHP Recommendation[1]
31MK139	Archaic, Woodland	None; additional survey recommended on site form
31MK144	Archaic	None; destroyed
31MK147	Paleoindian, Early Archaic, Middle Archaic, Late Archaic, and possible Woodland	None; no further work recommended on site form
31MK148	Woodland	None; further work recommended on site form
31MK149	Early and Middle Archaic, Woodland (Habitation)	None; site has been destroyed
31MK157	Early Archaic	None; no further work recommended on site form
31MK162	Middle and Late Archaic, and Middle Woodland (Habitation)	None
31MK168	Possible Late Mississippian (Habitation)	None; site destroyed
31MK173	Archaic (Habitation)	None
31MK190	Precontact—non diagnostic	None; likely destroyed
31MK239	Late Archaic (Habitation)	None; testing recommended on site form
31MK627	Precontact-no diagnostics	Not eligible
31MK797	Early 20th c. animal pen and shed	No further work recommended
31MK798	"Residual farming area"	No further work recommended
31MK799	County Home unmarked cemetery	Avoidance
31MK967	Cemetery	None

[1]Source: OSA site files.

Sites 31MK149, 31MK157, and 31MK168 described on site forms on file at OSA are located south of North Tyron Street and east of Sugar Creek Road. Site 31MK149 was recorded as an Archaic (Early and Middle) and Woodland habitation. The site was completely destroyed by 1977, but was located adjacent to or within the current LPA alignment along the NCRR east of Eastway Road. Site 31MK157, northeast of the North Tyron Street/Old Concord Road intersection, was recorded as a partially destroyed Early Archaic occupation; a single Kirk projectile point was collected. Site 31MK168, located in an industrial context east of Sugar Creek Road, north of Raleigh Street, and south of North Tyron Street (near the Sugar Creek Station [Sugar Creek Design Option]), was recorded as a destroyed Late Mississippian habitation; a single Pee Dee projectile point was collected.

Sites 31MK162 and 31MK144 were recorded near the NC-49/NC-29 split, south of North Tyron Street. Site 31MK162, a Middle and Late Archaic and Middle Woodland, habitation, is located approximately 200 ft north of Sandy Avenue, between Sandy Avenue and the University City Blvd Station Option 2 park-and-ride lot; LeCroy, Guilford, Savannah River, Morrow Mountain, and Uwharrie projectile points were collected. Site 31MK144 was recorded as an Archaic occupation located approximately 1,000 ft northeast of the NC-49/NC-29 split; the site has been completely destroyed by development.

Sites 31MK239, 31MK797, 31MK799, 31MK798, 31MK173, 31MK627, 31MK148, 31MK147, 31MK139, and 31MK190 are located in the Mallard Creek/Toby Creek drainage near the University of North Carolina at Charlotte. The Archaeology Department of the Catawba Cultural Preservation Project undertook an archaeological survey to accommodate the expansion of playing fields east and south of the Wachovia Field House (Phases I-III) (Kenion and Rice 1997), and to prepare for construction of a student housing project at UNC Charlotte (Phase IV) (Kenion et al. 1998). During the 1997 survey, four sites in the vicinity of the current project area were investigated. Site 31MK239 had been previously identified as a Late Archaic lithic scatter, and based on the revisit, no further work was recommended. Site 31MK797, contained farm materials from the twentieth century and was determined to have been a farm animal pen and shed. Site 31MK798 was a collapsed structure, while site 31MK799 was a historic cemetery formerly associated with what was known as County Home. Wake Forest University archaeologists identified a historic cemetery, site 31MK967, near the project area. However, this cemetery is only mentioned on a site form for another site, and no other information is available at OSA other than the location.

Sites 31MK173 and 31MK627 are located north of North Tyron Street. Site 31MK173 is described as an Archaic habitation and is located in the uplands overlooking Mallard Creek, northwest of the North Tyron Street/Mallard Creek Church Road intersection. Palmer, Guilford, Morrow Mountain, Halifax, and Savannah projectile points in a private collection were reportedly from the site. No recommendations are provided for the site. The North Carolina Department of Transportation conducted a survey for a roadway improvement project in the Mallard Creek Basin in 1993 (Padgett 1993). Padgett recorded site 31MK627. The site, recommended as not eligible of the NRHP, was an indeterminate Native American site with no diagnostic material.

Sites 31MK139, 31MK147, 31MK148, and 31MK190 are located north of the UNC Charlotte campus. Site 31MK139 was recorded as an Archaic and Woodland habitation. Guilford, Stanley, and Morrow Mountain, and small triangular projectile points were collected from the surface. On the 1974 site form, a major portion of the site had been destroyed. It is likely that more of the site has been impacted by recent construction. Sites 31MK147 and 31MK148 were recorded as precontact occupations on a raised landform southeast of the Mallard Creek/Toby Creek confluence. Site 31MK147 may include Paleoindian, Archaic, and Woodland components, although some of the diagnostic artifacts attributed to the site are in private collections. Site 31MK148 is a lithic scatter down slope (north) of site 31MK147. One small triangular projectile point was recovered from the surface. Site 31MK190, a non-diagnostic precontact site, was recorded by Fred Fischer in 1975. The site location is now a residential housing development indicating that it may have been destroyed (Padgett 1993).

5. METHODS

5.1 Introduction

The purpose of the identification survey was to determine if archaeological sites that are on, or potentially eligible for, the NRHP are located within the APE. Sites are normally assessed against the criteria for the NRHP to determine their potential for eligibility. These criteria require that the quality of significance in American history, architecture, culture, and archaeology should be present in buildings, structures, objects, sites, or districts that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that the buildings, structures, objects, sites, or districts:

A) are associated with events that have made a significant contribution to the broad patterns of our history;

B) are associated with the lives of persons significant in our past;

C) embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D) have yielded, or may be likely to yield, information important in prehistory or history (Federal Register 1981).

5.2 Background Research

Background research was conducted at OSA and the library of CCR. The purpose of this research was to identify any previously recorded archaeological sites within the vicinity of the project and to develop a historic context for the project. Where possible, research results from previous CCR projects in Mecklenburg County were utilized. Previously recorded sites from the OSA site files were plotted on the project maps, and information from the site forms and/or accompanying reports was noted.

5.3 Field Methods

The survey involved full consideration of all portions of the APE. Areas that were steeply sloped, wet, disturbed, and/or within drainages were examined but not surveyed. Subsurface survey methods were most commonly employed due to the lack of surface visibility in most areas. In those areas that were not disturbed, sloped, or wet, shovel tests were placed at 30-m intervals. Shovel tests were approximately 30 cm (1 foot) in diameter and were excavated into sterile subsoil. Fill from the shovel tests was screened through 6.35-mm (1/4-inch) hardware cloth. Soil texture was recorded and soil color was described using general descriptions and Munsell Color Charts.

Black-and-white and digital photographs were used to document the project area and all site areas. Site maps were prepared showing the locations of excavated shovel tests and site boundaries.

An archaeological site was defined by visible surface features or the recovery of three artifacts in reasonable association. When a site was identified, the approximate horizontal and vertical extent, as well as the internal configuration, was defined. This delineation was normally accomplished through the excavation of radial shovel tests at 10-m intervals. All sites were assigned temporary CCR tracking numbers. Permanent site numbers were assigned by OSA. Isolated finds, though not defined as sites, also receive OSA site numbers for management purposes.

In general, sites that lack sub-plow-zone artifact-bearing deposits, have low-density artifact distributions, contain evidence of deep plowing, lack spatial integrity, lack artifact concentrations, or exhibit signs of earth-disturbing activities do not appear to be good candidates for inclusion in the NRHP. Sites that contain concentrations of artifacts, intact surface features, or intact subsurface remains are recommended for additional evaluation to determine if they are eligible for inclusion in the NRHP.

5.4 Laboratory Methods

All artifacts were cleaned and labeled with an accession number provided by OSA. Analysis of the artifacts was conducted by CCR staff members. The material will be prepared for curation and submitted to OSA.

6. RESULTS AND RECOMMENDATIONS

6.1 Results of the Background Research

Figures 6-1 through 6-9 show, from south to north, the portions of the APE considered during the background research and field survey. The background research indicated that two previously recorded archaeological sites, 31MK149 and 31MK168, were located within the LPA Alignment or the Sugar Creek Design Option. Site 31MK149 was a precontact lithic scatter and possible habitation originally recorded in 1974 and, based on notes associated with the site form on file at OSA, was completely destroyed by heavy machinery between April and May, 1977 (see Figure 6-4). A field inspection of the area during the current study confirmed that the site has been destroyed. Site 31MK168, a possible Late-Mississippian habitation, was originally recorded as partially destroyed in 1975; subsequent development has destroyed the remainder of the site.

Site 31MK149 Area Looking East. The Site was Destroyed in 1977.

CCR's research also addressed the report of an African-American slave cemetery in the vicinity of the current APE. This cemetery, which was once part of the plantation of W. T. Alexander, is located approximately 0.2 miles northwest of the Mallard Creek Church Road/North Tryon Street intersection, within a gated apartment community. The cemetery is outside the APE and is currently fenced and marked with a sign (Morrill 2006).

Since sites 31MK149 and 31MK168 have been destroyed and no other previously recorded sites or historic cemeteries are in the APE, no previously recorded sites on or eligible for the NRHP will be affected by the project.

6.2 Results of the Survey

The entire APE was considered during the archaeological survey. The majority of the APE, which includes 15 proposed station locations, one proposed alignment option, and 18 proposed grade separations, was disturbed due to commercial development. Even areas that are not currently built upon were typically heavily eroded from previous development or were sloped and eroded due to drainage topography. Those areas that appeared to have minimal disturbance were surveyed (see Figure 6-1 through 6-9). In these cases, systematic shovel testing was necessary due to limited surface visibility. The shovel tested areas included portions of the proposed University City Blvd Station park-and-ride lots, the proposed LPA route north of UNC Charlotte and Mallard Creek Church Road, and the proposed Mallard Creek Church Station and park-and-ride lot. Representative shovel test profiles are included in Appendix C.

In addition, several station locations that are not part of the current design plans were investigated. These included the proposed City Boulevard Station Option 1, two Mallard Creek Church Station options located west of the North Tryon/Mallard Creek Church Road intersection, and the proposed I-485 North Extension area north of I-485.

One new archaeological site, 31MK1075, was recorded in the area of the formally proposed Mallard Creek Church Station (Option 1) located at the southwest corner of North Tryon Street and Mallard Creek Church Road (see Figure 6-8 and Appendix D).

6.2.1 9th Street Station and Grade Separation (LPA)

The proposed 9th Street Station is located between 9th Street and 11th Street within an abandoned railroad easement. The APE has been completely disturbed by development. No shovel testing was undertaken and no cultural resources were observed (Figure 6-1). A grade separation over a CSX railroad line was also investigated east of 9th Street Station; the area was disturbed and no cultural resources were observed.

6.2.2 Parkwood Station (LPA)

The proposed Parkwood Station is located between 18th Street and 20th Street, north of North Brevard Street, within the NCRR ROW. The APE has been completely disturbed by development. No shovel testing was undertaken and no cultural resources were observed (Figure 6-1).

6.2.3 27th Street Station, Little Sugar Creek Grade Separation, Duke Power Access Road, and Grade Separations Between 27th Street Station and 36th Street Station (LPA)

The proposed 27th Street Station is located between Little Sugar Creek and Charles Avenue, north of North Brevard Street. The APE is located on a constructed berm and has been completely disturbed by development. In addition to the 27th Street location, a grade separation over Little Sugar Creek was investigated south of the proposed station. The grade separation location has been disturbed and covered by rip rap. No shovel testing was undertaken and no cultural resources were observed (Figure 6-2).

Proposed Sugar Creek Grade Separation Location Showing Rip-Rap and Disturbance. View to Northwest.

Beginning approximately 100 m west of 30th Street, a proposed access road for Duke Power runs northeast across 30th Street and then arcs south to intersect North Brevard Street north of Faison Avenue (Figure 6-2). The access road is within a previously developed and heavily disturbed area. No shovel testing was undertaken and no cultural resources were observed.

Between 30th Street and the proposed 36th Street Station there are two proposed grade separations. Both

separations are within previously developed and heavily disturbed areas. No shovel testing was undertaken and no cultural resources were observed.

6.2.5 36th Street Station and 36th Street Grade Separations (LPA)

The proposed 36th Street Station is located south of 36th Street, within the NCRR ROW (Figure 6-2). The APE in this area has been disturbed by commercial development as well as the NCRR bed. Two proposed grade separations over 36th Street are also in areas of heavy disturbance. No shovel testing was undertaken and no cultural resources were observed.

6.2.6 Grade Separation Over East Craighead Road (LPA)

Within the LPA Alignment there is a proposed grade separation over East Craighead Road, between the proposed 36th Street Station and the Sugar Creek Station Option 1 (LPA). The proposed grade separation is in an area disturbed by development (Figure 6-3). No shovel testing was undertaken and no cultural resources were observed.

6.2.7 Sugar Creek Station (LPA) and Grade Separation Over East Sugar Creek Road (LPA)

The proposed Sugar Creek Station (LPA) is located within the NCRR ROW where it crosses East Sugar Creek Road (Figure 6-3). Two associated park-and-ride lots are also proposed to the west of the NCRR ROW, west of Raleigh Street. The APE in this area has been disturbed by commercial development as well as the NCRR bed. The proposed grade separation over East Sugar Creek Road is within the same disturbed context as the proposed station. No shovel testing was undertaken and no cultural resources were observed.

6.2.8 Sugar Creek Station (Sugar Creek Design Option), Park-and-Ride Lot, and Grade Separation

The proposed Sugar Creek Station Option 2 (Sugar Creek Design Option) is located within the Sugar Creek Design Option alignment, north of Raleigh Street and south of North Tryon Street (Figure 6-3). A proposed park-and-ride lot is located between the station and Raleigh Street and a proposed grade separation is located north of the station, where the alignment enters North Tryon Street. The APE in this area is within a developed industrial setting. No shovel testing was undertaken and no cultural resources were observed.

Site 31MK168, a partially disturbed possible Late Mississippian habitation was originally recorded in the area of the Sugar Creek Station (Sugar Creek Design Option). Subsequent to recording, the site was completely destroyed by development (Figure 6-3).

6.2.9 Grade Separation Over Eastway Drive Between the Sugar Creek Station and the Old Concord Road Station (Sugar Creek Design Option)

The proposed grade separation over Eastway Drive within the Sugar Creek Design Option alignment is within the existing North Tryon Street road corridor (Figure 6-4). No shovel testing was undertaken and no cultural resources were observed.

6.2.10 Old Concord Road Station Option 1, Park-and-Ride Lot, and Grade Separation (LPA)

The proposed Old Concord Road Station Option 1 (LPA) is located between the NCRR ROW, North Tryon Street, and Old Concord Road (Figure 6-4). The southern portion of the area includes industrial buildings, while the northern portion is eroded and badly disturbed. The grade separation extends from the developed area across Old Concord Road and into North Tryon Street. The APE in this area has been disturbed by commercial development as well as the NCRR bed. The proposed grade separation over Old Concord Road and North Tryon Street is within the same disturbed context as the proposed station and park-and-ride. No shovel testing was undertaken and no cultural resources were observed.

One previously recorded archaeological site, 31MK149, was located approximately 1,000 ft. south of the proposed Old Concord Road Station Option 1, partially within the NCRR ROW (Figure 6-4). As noted above, the site was destroyed in 1977.

6.2.11 Old Concord Road Station Option 2 (Sugar Creek Design Option)

The proposed Old Concord Road Station Option 2 (Sugar Creek Design Option) is located within the existing North Tryon Street corridor (Figure 6-4). No shovel testing was undertaken and no cultural resources were observed.

6.2.12 Tom Hunter Station and Park-and-Ride Lot (LPA)

The proposed Tom Hunter Station (LPA) is located within the existing North Tryon Street corridor (Figure 6-5). The proposed Tom Hunter Station park-and-ride lot is located west of North Tryon Street and north of Tom Hunter Road. The proposed areas are in developed or badly disturbed areas. No shovel testing was undertaken and no cultural resources were observed.

6.2.13 University City Blvd Station, Park-and-Ride Lots, and Grade Separations (LPA)

The proposed University City Blvd Station (LPA) is located within the existing North Tryon Street corridor (Figure 6-6). Two proposed park-and-ride lots are located west and east of North Tryon Street. Two grade separations are located within the North Tryon Street corridor near the University City Blvd Station, one approximately 1,500 feet south of the proposed station and one approximately 1,000 ft north of the station. Shovel testing was undertaken in both of the proposed park-and-ride lots (see Appendix C for shovel test profiles). One abandoned residential structure (modern) was recorded within the proposed western lot. No additional cultural resources were observed.

6.2.14 McCullough Station and Grade Separation (LPA)

The proposed McCullough Station (LPA) is located within the existing North Tryon Street corridor (Figure 6-7). One proposed park-and-ride lot is located west of North Tryon Street and north of McCullough Drive in a developed lot. One grade separation is located within the North Tryon Street corridor north of the proposed station at the North

Tryon Street/W.T. Harris Boulevard intersection. No shovel testing was undertaken and no cultural resources were observed.

6.2.15 JW Clay Blvd Station (LPA), Bus Transfer Facilities, and Hospital Drive

The proposed JW Clay Blvd Station (LPA) is located within the existing North Tryon Street corridor, south of JW Clay Boulevard (Figure 6-8). Two bus transfer facilities are proposed along JW Clay Blvd., west of North Tryon Street on previously developed land. A proposed new entrance to University Hospital directly south of JW Clay Boulevard, is also proposed on previously disturbed land. No shovel testing was undertaken and no cultural resources were observed.

6.2.16 Grade Separations Between JW Clay Blvd Station and UNC Charlotte Station (LPA)

Three grade separations are proposed between the JW Clay Blvd Station and the UNC Charlotte Station (Figure 6-8). Two of the grade separations are within the existing North Tryon Street corridor; the third grade separation is proposed to cross Mallard Creek approximately 500 ft. west of the UNC Charlotte Station. Shovel testing was undertaken along the proposed LPA alignment between North Tryon Street and the UNC Charlotte Station. The results indicated areas of disturbance, areas of slope erosion, as well as low, wet areas (see Appendix C). No cultural resources were recorded.

6.2.17 UNC Charlotte Station (LPA)

The proposed UNC Charlotte Station is located on undeveloped land north of Cameron Boulevard and west of campus parking lot 25 (Figure 6-8). Shovel testing was undertaken along the proposed LPA alignment. The results indicated areas of disturbance, areas of slope erosion, as well as low, wet areas (see Appendix C). No cultural resources were recorded.

6.2.18 Area Between UNC Charlotte Station and Mallard Creek Church Station

The proposed LPA alignment includes primarily undeveloped land between the UNC Charlotte Station and the Mallard Creek Church Station (Figure 6-8). Shovel testing was undertaken along the proposed LPA alignment. The results indicated areas of disturbance, areas of slope erosion, as well as low, wet areas (see Appendix C). No cultural resources were recorded.

Shovel Testing in the Mallard Creek Area Showing the Typical Environment. View to East.

6.2.19 Mallard Creek Church Station, Park-and-Ride Lot, and Grade Separation (LPA)

The proposed Mallard Creek Church Station (LPA) is located north of Mallard Creek Church Road within the LPA alignment (Figure 6-8). One

proposed park-and-ride lot is located north of Mallard Creek Church Road and east of Mallard Creek. One grade separation is proposed across Mallard Creek where the LPA alignment enters into the North Tryon Street corridor. Shovel testing was undertaken along the LPA alignment as well as in the proposed park-and-ride lot area. The results indicated areas of disturbance, areas of slope erosion, as well as low, wet areas (see Appendix C). No cultural resources were recorded.

Site 31MK1075, a historic scatter, was recorded to the west of the North Tyron Road/Mallard Creek Church Road intersection where a previously considered park-and-ride lot was proposed. Later revisions to the LPA moved the alignment south towards the UNC Charlotte, thus removing the site from the current APE. Although the site is outside the APE, its site description is included as Appendix D.

6.2.20 I-485/N. Tryon Station and Park-and-Ride Lot (LPA)

The proposed I-485/N. Tryon Station (LPA) is located to the east of the existing North Tryon Street corridor within an area previously disturbed during the construction of I-485 (Figure 6-9). One proposed park-and-ride lot is also located east of North Tryon Street within the same disturbed context. No shovel testing was undertaken and no cultural resources were observed.

6.2.21 Area East of I-485 (North Extension)

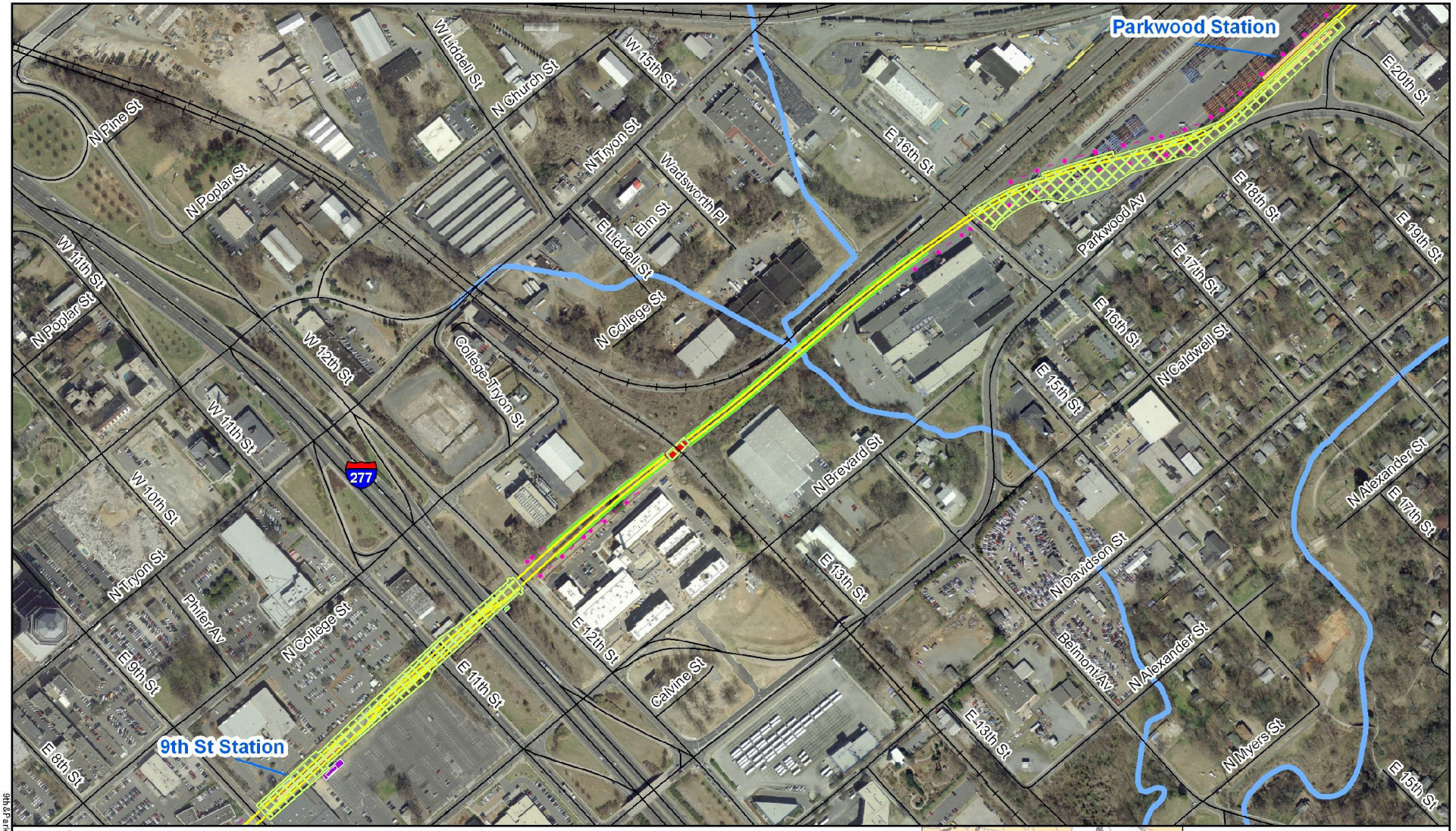
An area east of I-485 at the southeast intersection of North Tyron Road and Pavilion Boulevard was previously considered for a station location and park-and-ride lot, but is currently outside the APE (Figure 6-9). The park-and-ride location was disturbed and shovel testing was restricted to the area near the station location (see Appendix C). No cultural resources were observed.

6.3 Summary and Recommendations

Background research indicates that two previously recorded sites, 31MK149 and 31MK168, were recorded within the APE but have been destroyed by modern commercial development. One newly recorded archaeological site, 31MK1075, was documented as a result of the survey. However, the site is located outside the current APE and will not be affected by the proposed undertaking. Given the results of the investigation, no new or previously recorded sites on or eligible for the NRHP will be affected by the project, and no further archaeological research is recommended.

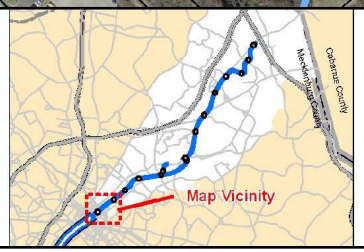
LYNX Blue Line Extension

Figure 6-1
9th Street and Parkwood Station Locations - Archaeological Survey Results



Legend

- Light Rail Transit
- Sugar Creek Design Option
- Proposed Structures
- Proposed Station Platforms
- Proposed ROW
- Previously Identified Archaeological Site
- Newly Identified Archaeological Site
- Surveyed- Disturbed/Wet Area
- Shovel Tested Area
- Proposed Retaining Walls
- Proposed Signal House
- Proposed Substation
- Proposed Park-and-Ride Facilities
- Streams
- Railroad
- Roads



250 125 0 250

Feet

1 inch equals 500 feet

Data Source: Coastal Carolina Research, Charlotte Area Transit System, STV/RWA, Mecklenburg County GIS Aerial (2007)

01.08.09

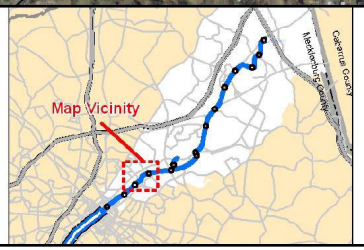
9th&Parkwood_Arch_Survey_Fig 6-1_Rev.00.pdf

LYNX Blue Line Extension

Figure 6-2
27th Street and 36th Street Station Locations - Archaeological Survey Results

Legend

- Light Rail Transit
- Sugar Creek Design Option
- Proposed Structures
- Proposed Station Platforms
- Proposed ROW
- Previously Identified Archaeological Site
- Newly Identified Archaeological Site
- Surveyed- Disturbed/Wet Area
- Shovel Tested Area
- Proposed Retaining Walls
- Proposed Signal House
- Proposed Substation
- Proposed Park-and-Ride Facilities
- Streams
- Railroad
- Roads



300 150 0 300

Feet

1 inch equals 600 feet

Data Source: Coastal Carolina Research, Charlotte Area Transit System, STV/RWA, Mecklenburg County GIS Aerial (2007)

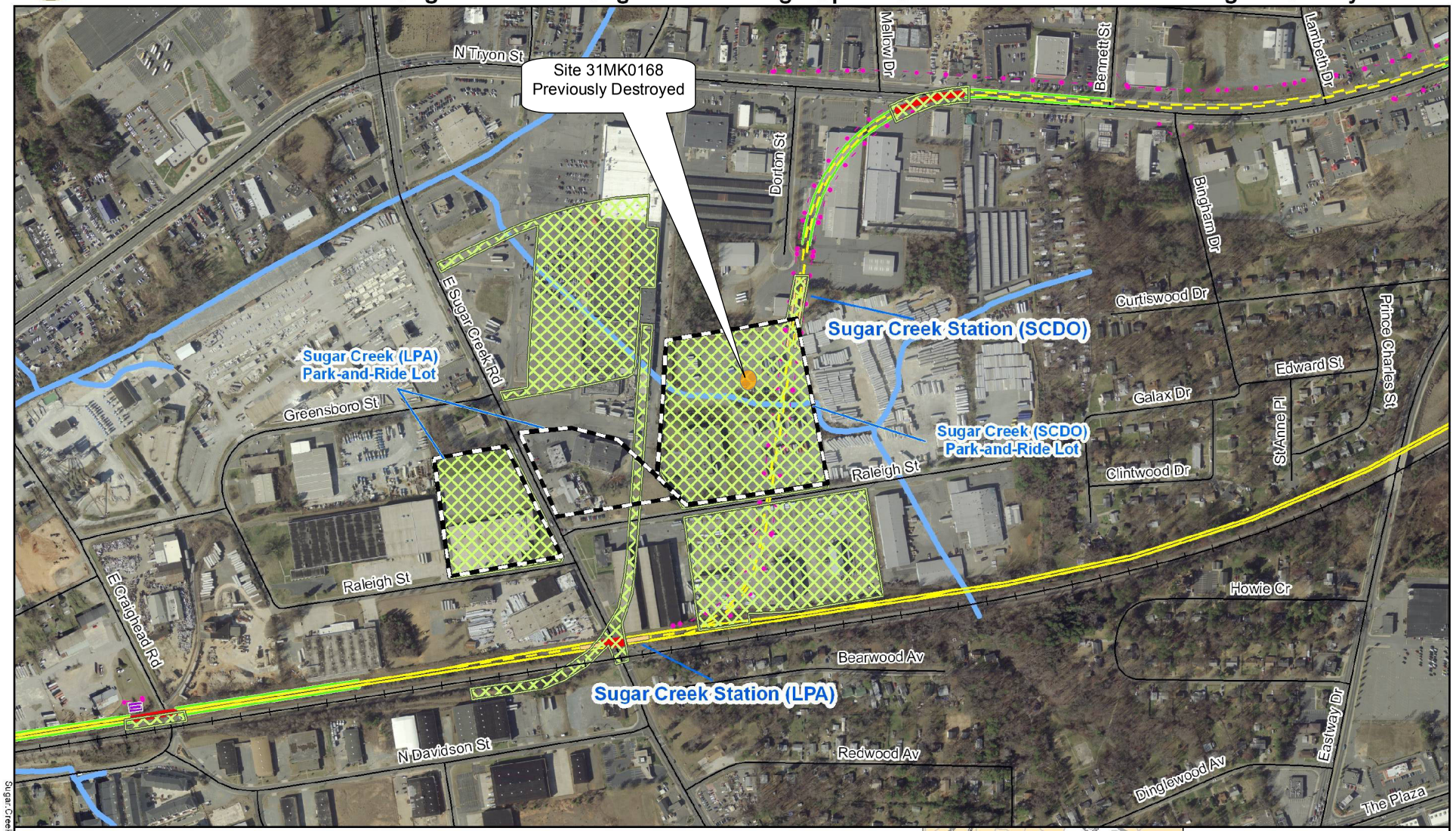
01.08.09

27th&36th Street_Arch_Survey_Fig 6-2_Rev.00.pdf

LYNX Blue Line Extension

Figure 6-3

Sugar Creek and Sugar Creek Design Option Station Locations - Archaeological Survey Results



Sugar Creek Area_Arch_Survey_Fig 6-3_Rev.00.pdf

01.08.09

LYNX Blue Line Extension

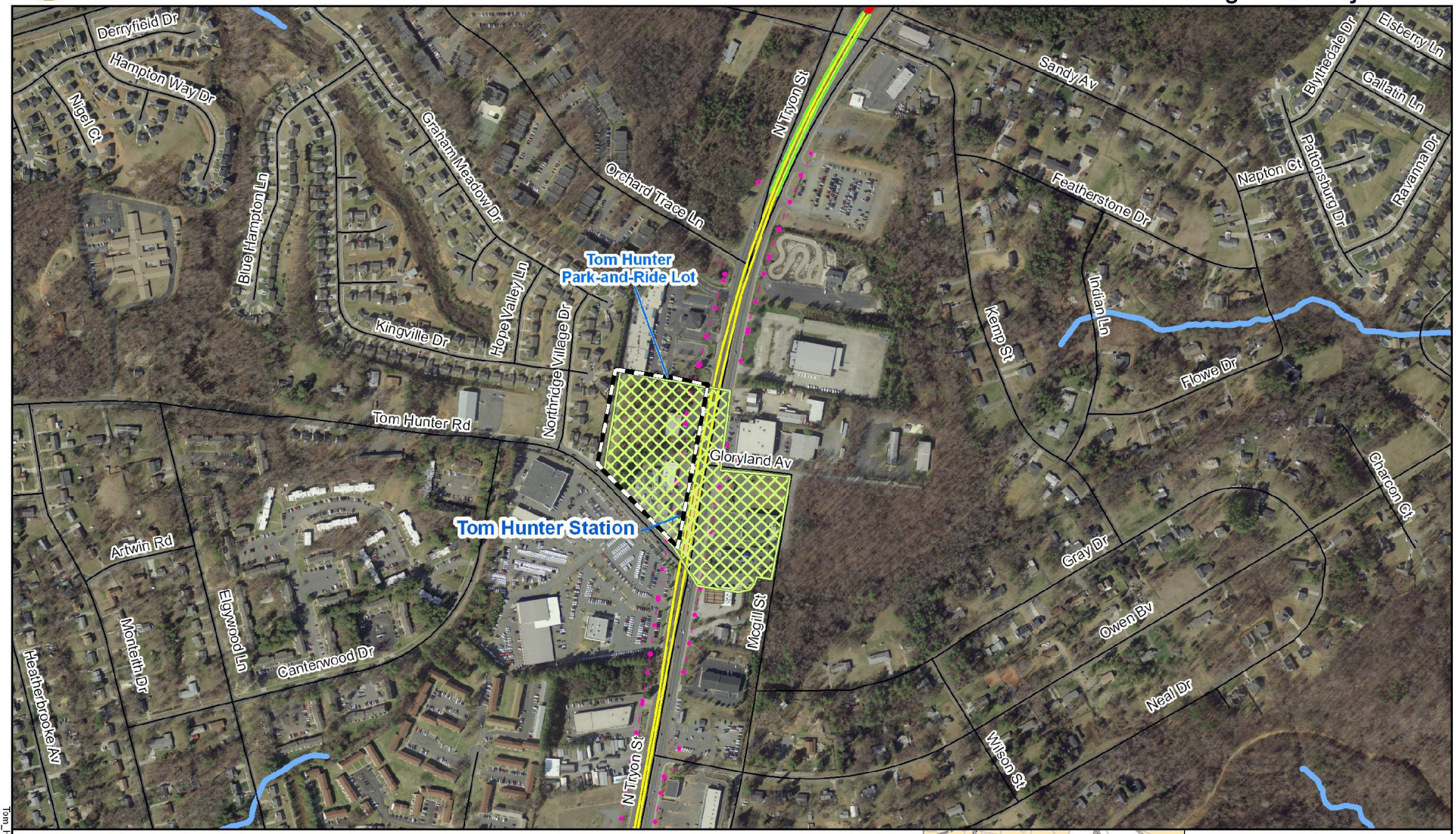
Figure 6-4

Old Concord Rd and Old Concord Rd Design Option Station Locations - Archaeological Survey Results

Old Concord Area_Arch_Survey_Fig 6-4_Rev.00.pdf

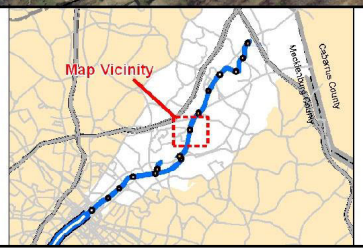
LYNX Blue Line Extension

Figure 6-5
Tom Hunter Station Location - Archaeological Survey Results



Legend

- Light Rail Transit
- Sugar Creek Design Option
- Proposed Structures
- Proposed Station Platforms
- Proposed ROW
- Previously Identified Archaeological Site
- Newly Identified Archaeological Site
- Surveyed- Disturbed/Wet Area
- Shovel Tested Area
- Proposed Retaining Walls
- Proposed Signal House
- Proposed Substation
- Proposed Park-and-Ride Facilities
- Streams
- Railroad
- Roads



300 150 0 300

Feet

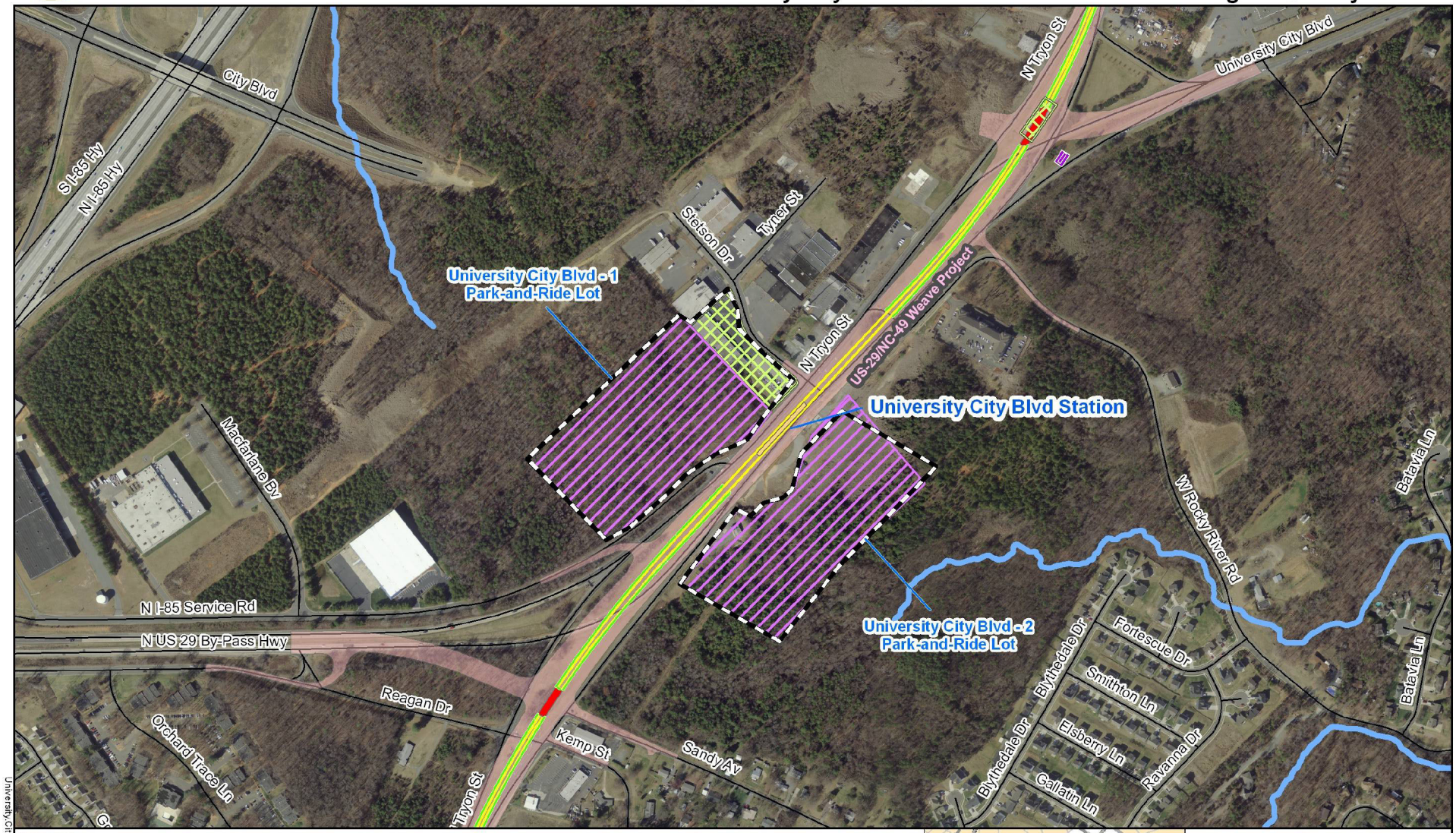
1 inch equals 600 feet

Data Source: Coastal Carolina Research, Charlotte Area Transit System, STV/RWA, Mecklenburg County GIS Aerial (2007)

01.08.09

Figure 6-6

University City Blvd Station Location - Archaeological Survey Results



University.City.Blvd_Arch_Survey_Fig.X-X_Rev.00.pdf

Figure 6-7
McCullough Station Location - Archaeological Survey Results

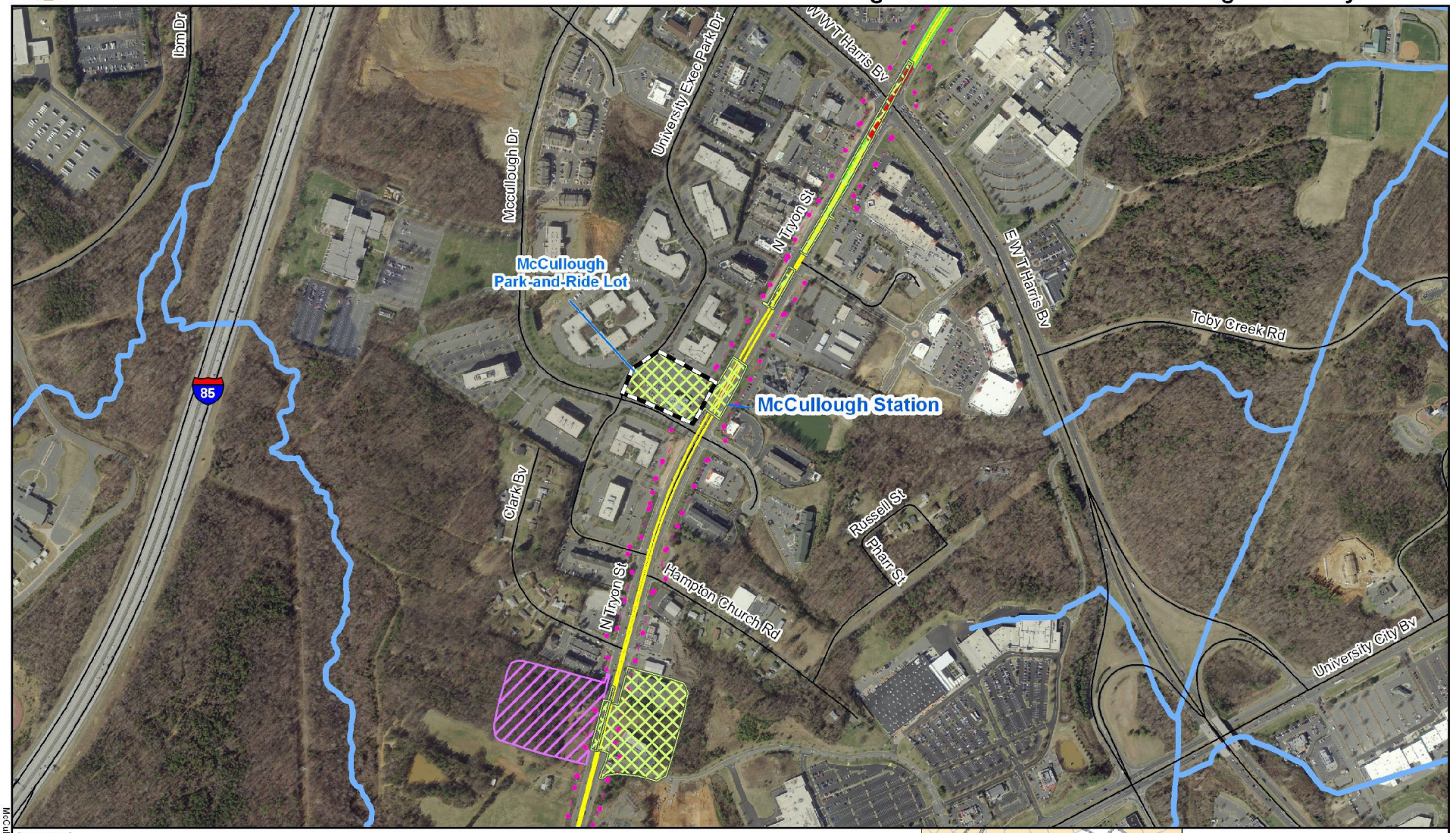
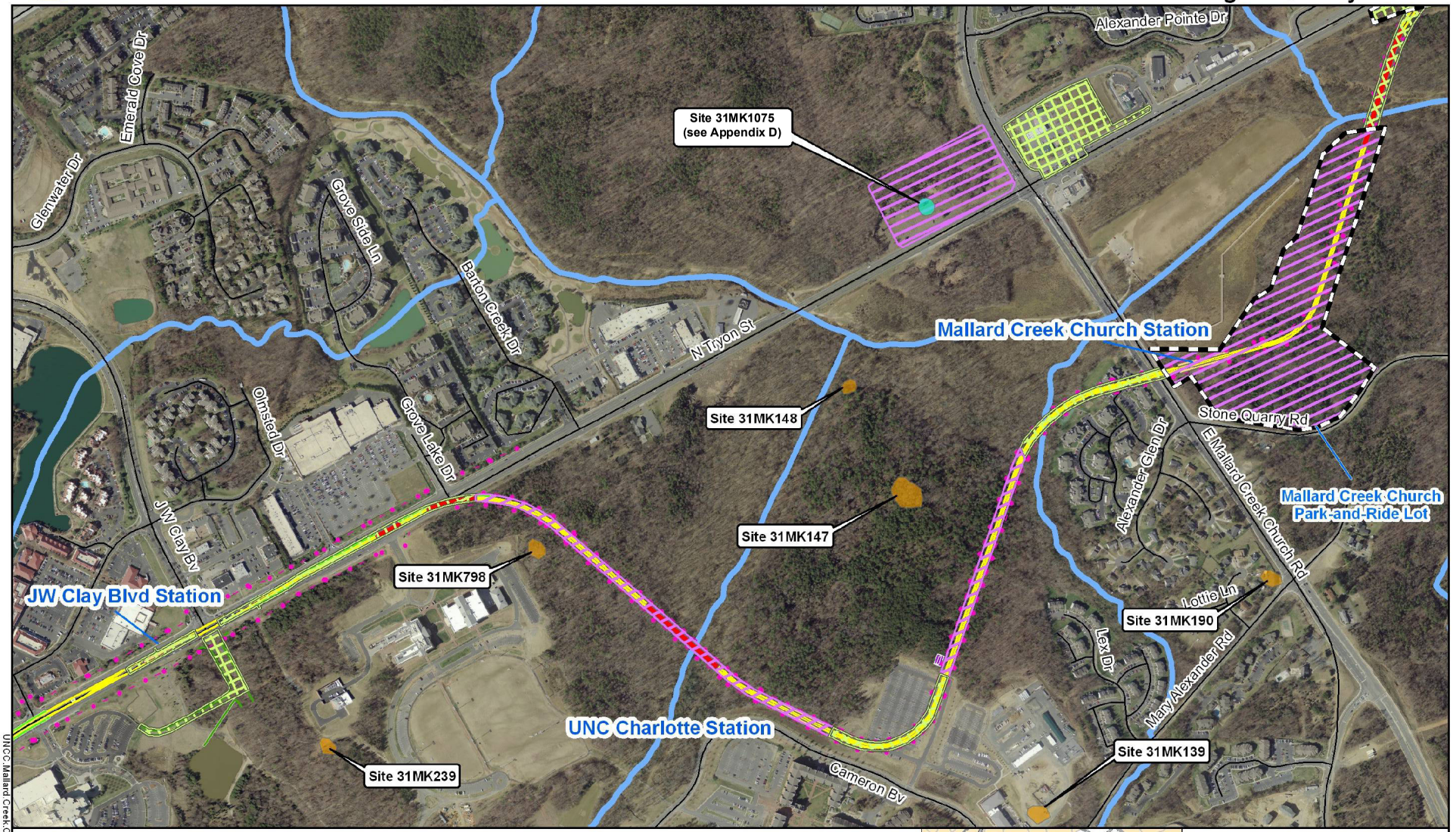
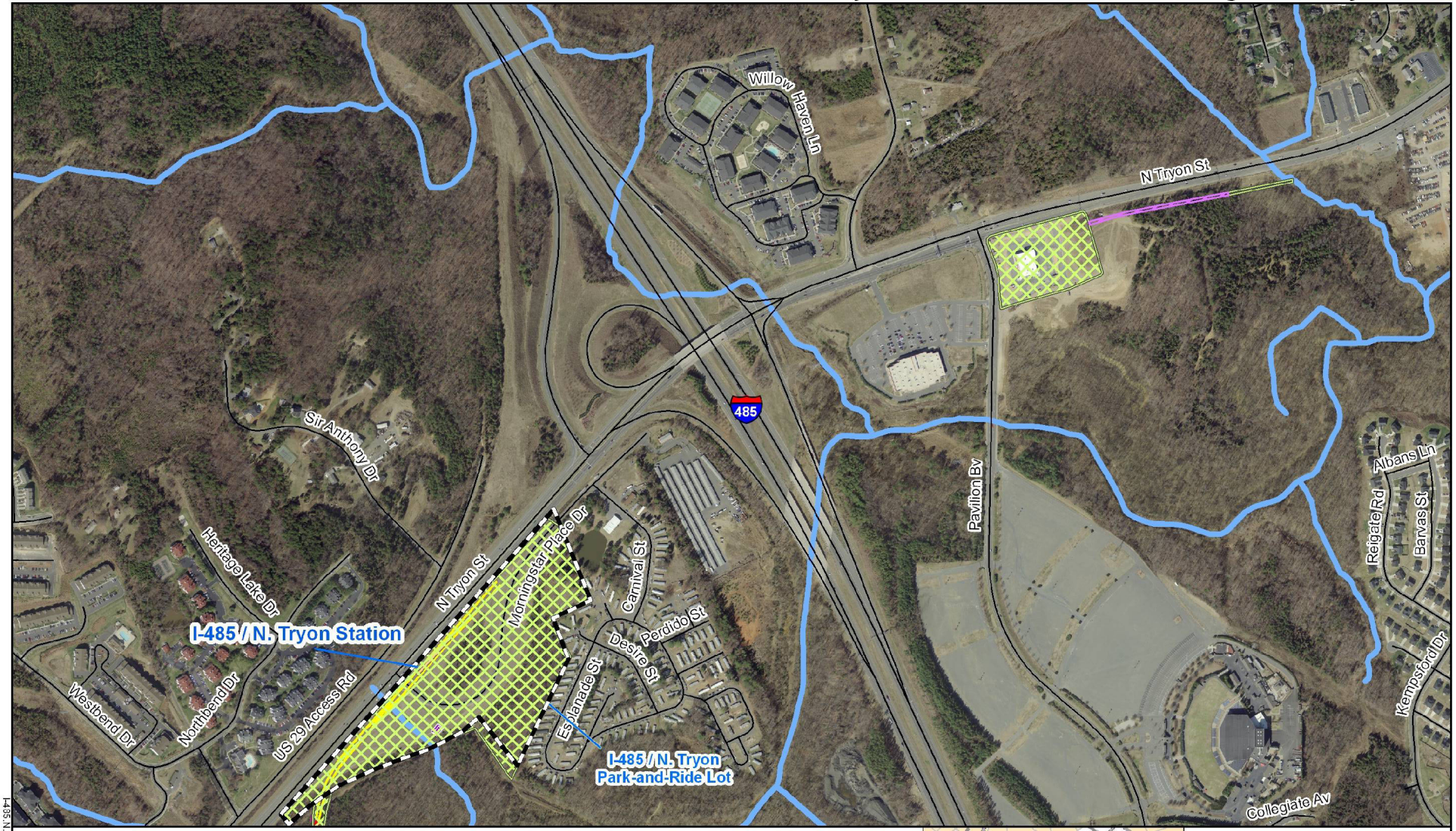


Figure 6-8
UNC Charlotte and Mallard Creek Church Station Locations- Archaeological Survey Results



UNCC-Mallard Creek-Church_Arch_Survey_Fig-6-8_Rev.00.pdf

Figure 6-9
I-485 / N.Tryon Station Locations- Archaeological Survey Results



I-485_N.Tryon_Arch_Survey_Fig 6-9_Rev.00.pdf

01.08.09

7. REFERENCES CITED

Alexander, John B.
1902 *The History of Mecklenburg County from 1740 to 1900*. Observer Printing House, Charlotte, North Carolina.

Anderson, David G., and Michael K. Faught
1998 The Distribution of Fluted Paleoindian Projectile Points: Update 1998. *Archaeology of Eastern North America* 26:163-187.

Blythe, Legette, and Charles R. Brockmann
1961 *Hornet's Nest: The Story of Charlotte and Mecklenburg County*. McNally, Charlotte, North Carolina.

Braun, E. Lucy
1950 *Deciduous Forests of Eastern North America*. Blakiston, Philadelphia.

Cable, John S.
1996 Haw River Revisited: Implications for Modeling Terminal Late Glacial and Early Holocene Hunter-Gatherer Settlement Systems in the Southeast. In *The Paleoindian and Early Archaic Southeast*, edited by D. G. Anderson and K. E. Sassaman, pp. 107-148. University of Alabama Press, Tuscaloosa.

Carpenter, P. Albert, III
1993 *Gold in North Carolina*. Information Circular 29, Department of Environment, Health, and Natural Resources, North Carolina Geological Survey, Raleigh.

Chapman, Jefferson
1977 *Archaic Period Research in the Lower Little Tennessee River Valley*. Report of Investigations No. 18, Department of Anthropology, University of Tennessee, Knoxville.

Claggett, Stephen R., and John S. Cable, assemblers
1982 *The Haw River Sites: Archaeological Investigations at Two Stratified Sites in the North Carolina Piedmont*. Ms. on file, Commonwealth Associates, Jackson, Michigan.

Coe, Joffre L.
1952 The Cultural Sequence of the Carolina Piedmont. In *Archaeology of the Eastern United States*, edited by J. B. Griffin, pp. 301-311. University of Chicago Press, Chicago.

1964 The Formative Cultures of the North Carolina Piedmont. *Transactions of the American Philosophical Society* 54(5), Philadelphia.

1995 *Town Creek Indian Mound.* University of North Carolina Press, Chapel Hill.

Corbitt, David L.
1950 *The Formation of North Carolina Counties, 1663-1943.* North Carolina Department of Cultural Resources, Raleigh.

Cumming, William P.
1958 *The Discoveries of John Lederer*. University of Virginia Press, Charlottesville.

Daniel, I. Randolph, Jr.
1998 *Hardaway Revisited: Early Archaic Settlement in the Southeast*. University of Alabama Press, Tuscaloosa.

Davis, R. P. Stephen, Jr., and I. Randolph Daniel, Jr.
1990 *Projectile Point Classification Project: The Classification of Projectile Points in Existing Archaeological Collections from North Carolina*. Research Laboratories of Anthropology, University of North Carolina, Chapel Hill.

Delcourt, Hazel, and Paul Delcourt
1985 Quaternary Palynology and Vegetational History of the Southeastern United States. In *Pollen Records of Late-Quaternary North American Sediments*, edited by V. M. Bryant, Jr., and R. G. Holloway, pp. 1-37. American Association of Stratigraphic Palynologists Foundation.

Delcourt, Paul, and Hazel Delcourt
1981 Vegetation Maps for Eastern North America: 40,000 YR B.P. to the Present. In *Geobotany II*, edited by R. C. Roman, pp. 123-165. Plenum Press, New York.

Drye, Carmen M.
1997 *An Analysis and Interpretation of the Archaic Projectile Point Sequence from Lowders Ferry, Stanly County, North Carolina*. Honors thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

Eastman, Jane M.
1994 The North Carolina Radiocarbon Date Study (Part 1). *Southern Indian Studies* 42.

Federal Register
1981 36 CFR 60, National Register of Historic Places. Washington, D.C.

Fenneman, Nevin
1938 *Physiography of Eastern United States*. McGraw-Hill, New York.

Funk, Linda
1979 *Reed Gold Mine*. Division of Archives and History, North Carolina Department of Cultural Resources, Raleigh.

Griffin, James B.
1967 Eastern North American Archaeology: A Summary. *Science* 156:175-191.

Hargrove, Thomas, Carol Spears, G. Ishmael Williams, and Scott Madry
1986 *Archaeological Investigations of the National Register Bennehan-Cameron Plantation Historic District and the Areas of Proposed Recreational Development and Proposed Wildlife Subimpoundments at Falls Lake, Wake and Durham Counties*. Ms. on file, Archaeological Research Consultants, Inc., Raleigh, North Carolina.

Hoffman, Charles
1988 *The Development of Town and Country: Charlotte and Mecklenburg County, North Carolina, 1850-1880.* Unpublished Ph.D. dissertation, University of Maryland, College Park.

Hudson, Charles
1970 *The Catawba Nation*. University of Georgia Press, Athens.

Hudson, Charles, Marvin T. Smith, and Chester B. DePratter
1984 The Hernando De Soto Expedition: From Apalachee to Chiaha. *Southeastern Archaeology* 3(1):65-78.

Justice, Noel D.
1987 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States*. Indiana University Press, Bloomington.

Kenion, R., and J. Rice
1997 *An Archaeological Survey of the University of North Carolina at Charlotte Recreation Fields and Access Road*. Ms. on file, Archaeology Department, Catawba Cultural Preservation Project.

Kenion, R., J. Rice, J. Bagley, and S. Reinhardt
1998 *University of North Carolina Charlotte Student Housing Project, Phase VIII, an Archaeological Survey, NC ARPA Permit #37*. Ms. on file, Archaeology Department, Catawba Cultural Preservation Project.

Lautzenheiser, Loretta, Mary Ann Holm, Susan E. Bamann, Jane Eastman, and Shane C. Petersen
1999 *Archaeological Data Recovery, Sites 31RD1166, 31RD1192, and 31GF376, Proposed Randleman Reservoir, Randolph and Guilford Counties, North Carolina.* Ms. on file, Coastal Carolina Research, Inc., Tarboro, North Carolina.

Lawson, John
1967 [1709] *A New Voyage to Carolina*. 1709 facsimile ed. University of North Carolina Press, Chapel Hill.

McCachren, Clifford M.
1980 *Soil Survey of Mecklenburg County*. USDA/SCS, Washington, D.C.

Meltzer, David J.
1989 Why Don't We Know When the First People Came to North America? *American Antiquity* 54(3):471-490.

Merrell, James H.
1989 *The Indian's New World: Catawbas and Their Neighbors from European Contact through the Era of Removal*. University of North Carolina Press, Chapel Hill.

Moore, David G.
2002 *Catawba Valley Mississippian: Ceramics, Chronology, and Catawba Indians.* The University of Alabama Press, Tuscaloosa.

Morrill, Dan L.
2006 "Cotton and Slaves" chapter from an internet historical overview of Charlotte and Mecklenburg County. Electronic document, http://www.danandmary.com/historyofcharlottechap3last.htm, accessed 3/21/2006.

Nixon, Alfred
1912 The German Settlers in Lincoln County and Western North Carolina. *James Sprunt Historical Publications* 11(2):27-62.

North Carolina Geological Survey (NCGS)
1985 *Geologic Map of North Carolina.* Department of Natural Resources and Community Development, Raleigh.

1988 *Preliminary Explanatory Text for the 1985 Geologic Map of North Carolina*. North Carolina Geological Survey, Raleigh.

Oliver, Billy L.
1985 Tradition and Typology: Basic Elements of the Carolina Projectile Point Sequence. In *Structure and Process in Southeastern Archaeology*, edited by R. S. Dickens, Jr., and H. T. Ward, pp. 195-211. University of Alabama Press, University.

1993 *Settlement of the Pee Dee Culture*. Unpublished Ph.D. dissertation, Department of Anthropology, University of North Carolina, Chapel Hill.

Padgett, Tom J.
1993 *Archaeological Survey Report, Mallard Creek Church Road, Mecklenburg County, TIP No. U-2508*. Ms. on file, Planning and Environmental Branch, Division of Highways, North Carolina Department of Transportation, Raleigh.

Perkinson, Phil H.
1971 North Carolina Fluted Points: Survey Report Number One. *Southern Indian Studies* 25:3-60.

1973 North Carolina Fluted Points: Survey Report Number Two. *Southern Indian Studies* 25:3-60.

Phelps, David S.
1983 Archaeology of the North Carolina Coast and Coastal Plain: Problems and Hypotheses. In *The Prehistory of North Carolina*, edited by M. A. Mathis and J. J. Crow, pp. 1-52. North Carolina Division of Archives and History, Raleigh.

Sanders, Thomas N.
1988 The Adams Site: A Paleoindian Manufacturing and Habitation Site in Christian County, Kentucky. In *Paleoindian and Archaic Research in Kentucky*, edited by C. Hockensmith, D. Pollack, and T. Sanders, pp. 1-24. Kentucky Heritage Council, Frankfurt.

Sanford, K.
1969 Once There Was a One-Room School. *Charlotte* 1(3):32-35, 38.

Smith, Marvin T.
1987 *Archaeology of Aboriginal Culture Change in the Interior Southeast*. University of Florida Press, Gainesville.

Spratt, C. A. and J. B. Spratt
1911 *Map of Mecklenburg County, North Carolina*. Ms. on file, North Carolina State Archives, Raleigh.

Staff of the Carolina Room of the Public Library of Charlotte and Mecklenburg County
2005 Mecklenburg County Home or "Poor House" Cemetery. In *Known Cemeteries and Burial Records of Mecklenburg County, NC*, Electronic document, http://www.cmstory.org/cemetery/details.asp?id=95, Accessed: 4 November 2005.

Swanton, John R.
1939 *Final Report of the United States De Soto Expedition Commission*. Reissued 1985. Smithsonian Institution Press, Washington, D.C.

Thornbury, William D.
1965 *Regional Geomorphology of the United States*. John Wiley and Sons, New York.

Tompkins, Daniel A.
1903 *History of Mecklenburg County and the City of Charlotte from 1740 to 1903*. Observer Printing House, Charlotte, North Carolina.

Trimble, Stanley W.
1974 *Man-Induced Soil Erosion on the Southern Piedmont, 1700-1970*. Soil Conservation Society of America, Awkeny, Iowa.

UNC Charlotte
1997 *The University of North Carolina at Charlotte, North Carolina*. On file at the University Archives at University of North Carolina at Charlotte.

Ward, H. Trawick
1983 A Review of Archaeology in the North Carolina Piedmont: A Study of Change. In *The Prehistory of North Carolina*, edited by M. A. Mathis and J. J. Crow, pp. 53-81. North Carolina Division of Archives and History, Raleigh.

Ward, H. Trawick, and R. P. Stephen Davis, Jr.
1988 *Archaeological Survey of the Candor 115 Kv Tap Line in Montgomery County, North Carolina*. Ms. on file, Research Laboratories of Archaeology, University of North Carolina, Chapel Hill.

1999 *Time Before History: The Archaeology of North Carolina*. University of North Carolina Press, Chapel Hill.

Woodall, J. Ned
1984 *The Donnaha Site: 1973, 1975 Excavations*. North Carolina Archaeological Council Publication No. 22, Raleigh.

APPENDIX A
SCOPE OF WORK

PROPOSAL TO PERFORM ARCHAEOLOGICAL SERVICES
COASTAL CAROLINA RESEARCH, INC.
1601 ST ANDREW STREET
TARBORO, NORTH CAROLINA

PROJECT: Archaeological Survey of the Proposed LYNX Blue Line Extension, Light Rail, Charlotte Area Transit System, North Carolina

DATE: April 9, 2008

INTRODUCTION

Coastal Carolina Research, Inc., proposes to perform the following archaeological services for STV in compliance with Sections 106 and 110 of the National Historic Preservation Act of 1966, the Advisory Council on Historic Preservation's regulations for compliance with Section 106, codified as 36 CFR Part 800, and Section 4(f) of the National Transportation Act. The scope of the investigations will be consistent with the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*. The archaeological report will conform to the report guidelines issued by the Office of State Archaeology (OSA) of the State Historic Preservation Office (SHPO).

The project will consist of updating the previously prepared Phase I Identification Archaeological Survey report of the proposed Northeast Corridor light rail line prepared by CCR for the original alignment (Bamann et al. 2006) and conducting archaeological survey of the added alignment to serve UNCC. The purpose of the survey is to determine if archaeological resources which are on, or potentially eligible for, the National Register of Historic Places (NRHP) are located within the project area. If such properties are found to be present, the report will make recommendations for any needed additional work or management options. If properties that appear potentially eligible for the NRHP are located in the survey area, additional evaluation may be necessary. If so, a budget supplement will be required.

DESCRIPTION OF THE STUDY

An archaeological survey conducted in 2005 (Bamann 2006) covered the study area of an approximately 14-mile-long corridor and 16 station locations. The rail corridor partially followed city streets and partially paralleled existing rail tracks. Twelve park-and-ride stations locations, averaging 4 acres (total 48 acres) and one walk-up station were to be surveyed during the 2006 study. All of the stations were considered; however, most had been previously disturbed. Portions of the proposed alignment that did not appear to be previously disturbed were also surveyed.

The current study will involve the updating of the previous study to incorporate the results of the survey of an alignment shift into the University of North Carolina at Charlotte and of the areas of grade separations and retaining walls that were not included in the previous study. The current study will include the 1.2 mile alignment on new location to serve UNCC, an added station and 1000 car parking deck at Rocky River, and grade separations at seven locations. It is assumed that the study corridor will be100 feet wide (14 acres) and that grade separations will require minimal disturbance. An average size of 1-2 acres is anticipated for each (14 acres). The station location is anticipated to be five acres for a total of 32 acres of coverage.

The study of the added alignment and station, etc. will require updating of graphics as well as the report. Re-formatting of the report to include new information, footers, font style, and font size is included. If graphics have to be re-created to follow changed formats, a budget supplement will be required.

ARCHAEOLOGICAL RESOURCES PROTECTION PREMIT (ARPA)

It will be necessary to obtain an ARPA permit in order to survey on state property. The time required to obtain this permit could impact project schedules.

ARCHAEOLOGICAL SURVEY

Background Research will be conducted at the Office of State Archaeology, the state library, the library of Coastal Carolina Research, Inc., and possibly the UNC-Charlotte library. The information in the previous report will be updated as needed.

Archaeological Survey. The survey will be designed to identify the archaeological resources within the survey area, and if possible, to determine whether or not the identified resources are potentially eligible for listing in the National Register of Historic Places (NRHP). The level of effort will be to the extent needed to identify the sites and assess the *potential* for eligibility of a site to the NRHP. It is often not possible to evaluate archaeological sites without an intensive testing program. Evaluative testing to determine eligibility is not included in the current proposal.

In areas of sufficient surface visibility a surface survey will be conducted supplemented by shovel tests. Surface survey will be the survey method of choice when appropriate. Shovel tests will be placed in sites identified by surface survey to view the soil profiles. Shovel tests will also be utilized in areas of poor surface visibility, and will be placed on no greater than 30 m intervals in areas of moderate and well drained soils. Survey intervals will be greater in areas of somewhat poorly drained soils and will be placed judgmentally depending on the soil conditions. Disturbed and wet areas will not be shovel-tested.

Shovel tests are usually 30 x 30 cm and are excavated into the subsoil or sterile soil. Occasionally larger tests will be utilized. Fill from the tests will be screened

through 0.25-inch mesh screen. In the event that the soil cannot be screened, the fill will be hand and trowel sorted.

An archaeological site will be defined by the recovery of three artifacts in reasonable association. Historic sites are also defined by the presence of surface or subsurface structural remains. Diagnostic isolated finds are given a site number for management purposes. On occasion, an isolated find will be defined as a site, particularly in those instances where the find is recovered from an area of low visibility or heavy erosion and in an area where the presence of a site would be expected.

When an archaeological site is identified, the approximate horizontal and vertical extent of the site, as well as the internal configuration of the site, will be defined to the extent possible.

It is understood that it may not be possible to determine the National Register eligibility of some of the identified resources without additional work beyond the scope of a Phase I effort. This additional work would be conducted under a Phase II program of resource evaluation.

Management Summary. The management summary will be submitted to STV within ten working days following the completion of fieldwork. This summary is a preliminary evaluation of the results of the fieldwork. The summary will discuss the results of the fieldwork and present a preliminary assessment of the identified archaeological sites.

All sites recorded will be given a permanent site number obtained from the Office of State Archaeology. This site number may not be available for the management summary, but will be used in the final report.

Evaluation. Recommendations for sites that appear to not be eligible for the NRHP or for sites requiring additional work to determine eligibility for the NRHP will be based on the criteria of eligibility for the National Register of Historic Places. These criteria require that the quality of significance in American history, architecture, culture, and archaeology should be present in sites that possess integrity of location, design, setting, materials, workmanship, feeling and association, and that the sites:

A. are associated with events that have made a significant contribution to the broad patterns of our history; or

B. are associated with the lives of persons significant in our past; or

C. embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. have yielded, or may be likely to yield, information important in prehistory or history (NPS 1986).

In assessing the significance of the resource, the integrity of the resource will be considered. Also considered will be the degree of redundancy contained in the resource. Evaluations of the local and regional significance will be guided by the statewide plan for archaeological research in the state of North Carolina.

In general, sites which lack sub-plow zone artifact-bearing deposits, have low-density artifact distribution, contain evidence of deep plowing, lack spatial integrity, lack artifact concentrations, or exhibit signs of earth-disturbing activities do not appear to be good candidates for inclusion in the National Register of Historic Places. Sites which contain concentrations of artifacts, which contain large ceramic sherds, especially those with fresh breaks, which appear to have spatial integrity, or which contain evidence of intact deposits are recommended for additional evaluation to determine if they are eligible for inclusion in the National Register of Historic Places.

Analysis. At the completion of the fieldwork, the recovered artifacts will be analyzed. This information will be included in the final report.

All artifacts will be cleaned and labeled with an accession number provided by the Office of State Archaeology. At the completion of the project, all artifacts will be submitted to the OSA for curation. Fees for curation are included in the budget.

Prehistoric lithic artifacts will be defined using Coe (1964) as the primary authority on typology and temporal placement. Lithic raw material will also be determined. Fire-cracked rocks and unmodified cobbles will be noted, but generally not retained for curation. Prehistoric ceramics will be defined as to type and temporal placement using the appropriate typologies. The regional typologies and listing of references will be those detailed in Eastman and Lautzenheiser (1993). Clay impressions of surface treatments will be taken where possible to determine the twist and size of cordage and weaves of fabric.

Historic artifacts will be analyzed using standard source books and typologies. Ceramics and glassware will be typed and temporally assigned where possible. Where collection size warrants, an assessment of status will be attempted. Brick debris will be sampled but not intensively collected. Recent artifacts will be noted but generally not collected. Metal items will be cleaned and kept dry, and electrolysis may be conducted on selected artifacts.

Final Report. A final report will be prepared which will detail the results of the background review and intensive survey. The report will be prepared following the guidelines prepared by the Office of State Archaeology.

Five copies of the draft report will be submitted to STV for transmittal to CATS for comment. Any comments will be addressed and a revised draft report will be submitted to STV for submittal to the SHPO for comment.

Seven copies of the final report will be submitted within six days of receiving draft comments. One Word copy and one .pdf will be provided on CD.

OTHER CONDITIONS

1. No work will begin without a mutually acceptable, fully executed contract. This proposal will form the basis of the consultant contract.

2. STV will provide a right of entry letter or access to the project area to the archaeologist prior to starting fieldwork.

3. STV will provide accurate maps to the archaeologist prior to stating work.

4. Compensation. Invoices for the percentage of work completed will be submitted monthly to STV. Invoices are payable within 30 days.

6. Schedule. The schedule will depend upon the receipt of maps, contracts, and permission to proceed. No work will be initiated without a mutually acceptable executed contract. The schedule will be negotiated with STV.

7. This proposal does not provide for the preparation of a formal evaluation of effects report for submittal to the Advisory Council on Historic Preservation, a formal request for Determination of Eligibility (DOE) if required in the event of a disagreement between the agency and the SHPO on the eligibility of a site, or a memorandum of agreement (MOA).

REFERENCES CITED

Bamann, Susan, Bill Hall, and Loretta Lautzenheiser
2006 Archaeological Identification Survey, Charlotte Area Transit System Northeast Corridor Light Rail Project, Mecklenburg County, North Carolina. Draft Report on file, Coastal Carolina Research Inc, Tarboro, North Carolina.

Coe, Joffery
1964 The Formative Cultures of the Carolina Piedmont. *Transactions of the American Philosophical Society, N.S.* 54(5), Philadelphia, Pennsylvania.

Eastman, Jane M., and Loretta Lautzenheiser (compilers)

1993 *Prehistoric Ceramics of North Carolina: A Quick Tour of the Published Literature*. Ms. on file, Coastal Carolina Research, Tarboro, North Carolina.

APPENDIX B
ARPA PERMIT

PERMIT
TO CONDUCT ARCHAEOLOGICAL INVESTIGATIONS
(Pursuant to G.S. 70, Article 2)

Permit Number **84**

Permit Duration:
July 1, 2008 – July 31, 2009

A permit is hereby issued to:

Loretta Lautzenheiser
Coastal Carolina Research, Inc.
1601 St. Andrews Street
Tarboro, NC 27886

to conduct surface survey and subsurface testing at the following property owned or controlled by the State of North Carolina:

Proposed LYNX Blue Line Extension
University of North Carolina at Charlotte, Mecklenburg County

The purpose of these investigations is to conduct an archaeological survey of the area of potential effect (APE) for the proposed light rail system extension and assess any located sites for their eligibility for inclusion in the National Register of Historic Places.

Reporting requirements and schedule: **SEE ATTACHED**

Special Conditions: **SEE ATTACHED**

APPROVAL:

Stephen R. Claggett — 11 Aug 08
Stephen R. Claggett, State Archaeologist — Date

Phil Jones by Peter Franzy — 8.1.08
Phil Jones, UNC-Charlotte — Date

This permit and its conditions are hereby accepted:

Loretta Lautzenheiser — 8-22-08
Loretta Lautzenheiser, Permittee — Date

REPORTING REQUIREMENTS AND SCHEDULES
ARPA PERMIT #84

The draft and final reports submitted as a result of the permitted archaeological investigations shall conform, as much as applicable, to the attached "Guidelines for Preparation of Archaeological Survey Reports by the Office of State Archaeology, Division of Archives and History, North Carolina Department of Cultural Resources.

As defined in Section .0702(5) of the administrative code, a preliminary field report means a brief summary of the results of the fieldwork undertaken during the permit, including, but not limited to:

(1) a map showing the areas of investigation;
(2) a brief summary of the purpose, methods and results; and,
(3) recommendations concerning any additional archaeological investigations within the permit area.

On or before the dates listed below, reports are to be submitted to the Office of State Archaeology and UNC-Charlotte:

(1) Preliminary field report – by August 31, 2008
(2) Draft report – by February 28, 2009
(3) Final report – by July 31, 2009

Archaeological Survey and Testing
LYNX Blue Line Extension
University of North Carolina at Charlotte, Mecklenburg County
Special Permit Conditions

1. To the extent permitted by North Carolina law, the State of North Carolina will be held harmless for any trespass of or damage to any adjacent private property caused by the permittee under the terms of the permit.

2. The permittee will be held responsible for any damage to state property resulting from the permitted investigations.

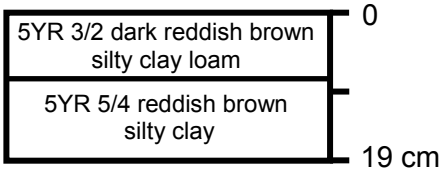
3. The permit area will be restored, to the extent possible, to its pre-project condition by the conclusion of the field investigations unless otherwise agreed upon by Peter Franz, Director of Facilities Planning, at UNC-Charlotte.

4. All investigations conducted under this permit shall be coordinated with Mr. Franz, or his designee. The permittee shall notify Mr. Franz or his designee prior to the initiation of field investigations and at the completion of the fieldwork. Mr. Franz may be contacted at (704) 687-3685.

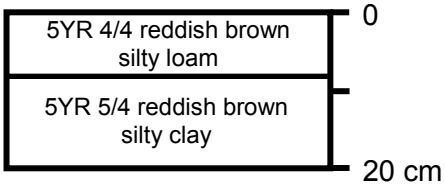
APPENDIX C
SHOVEL TEST PROFILES

SHOVEL TEST PROFILES

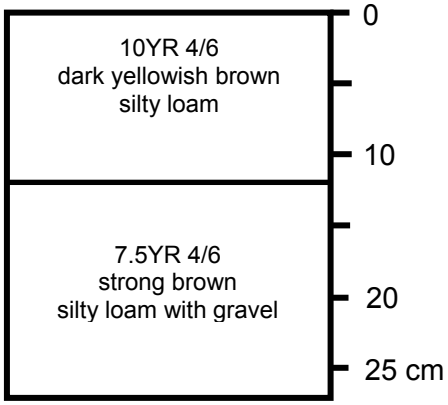
University City Boulevard Station Shovel Test 3



University City Boulevard Station Shovel Test 19

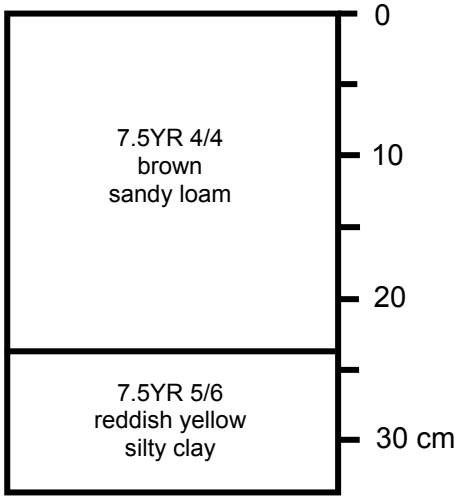


Grade Separation Between JW Clay Boulevard Station and UNC Charlotte Station L-2 Shovel Test 3

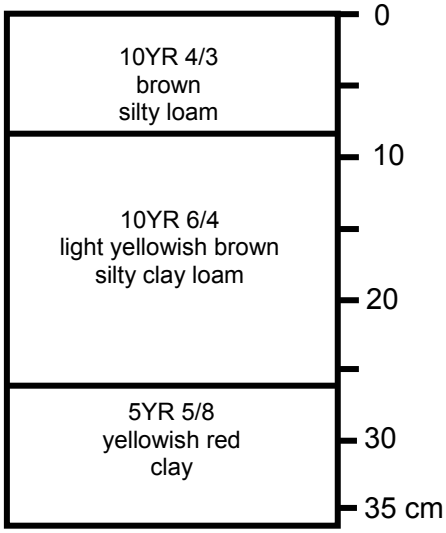


SHOVEL TEST PROFILES

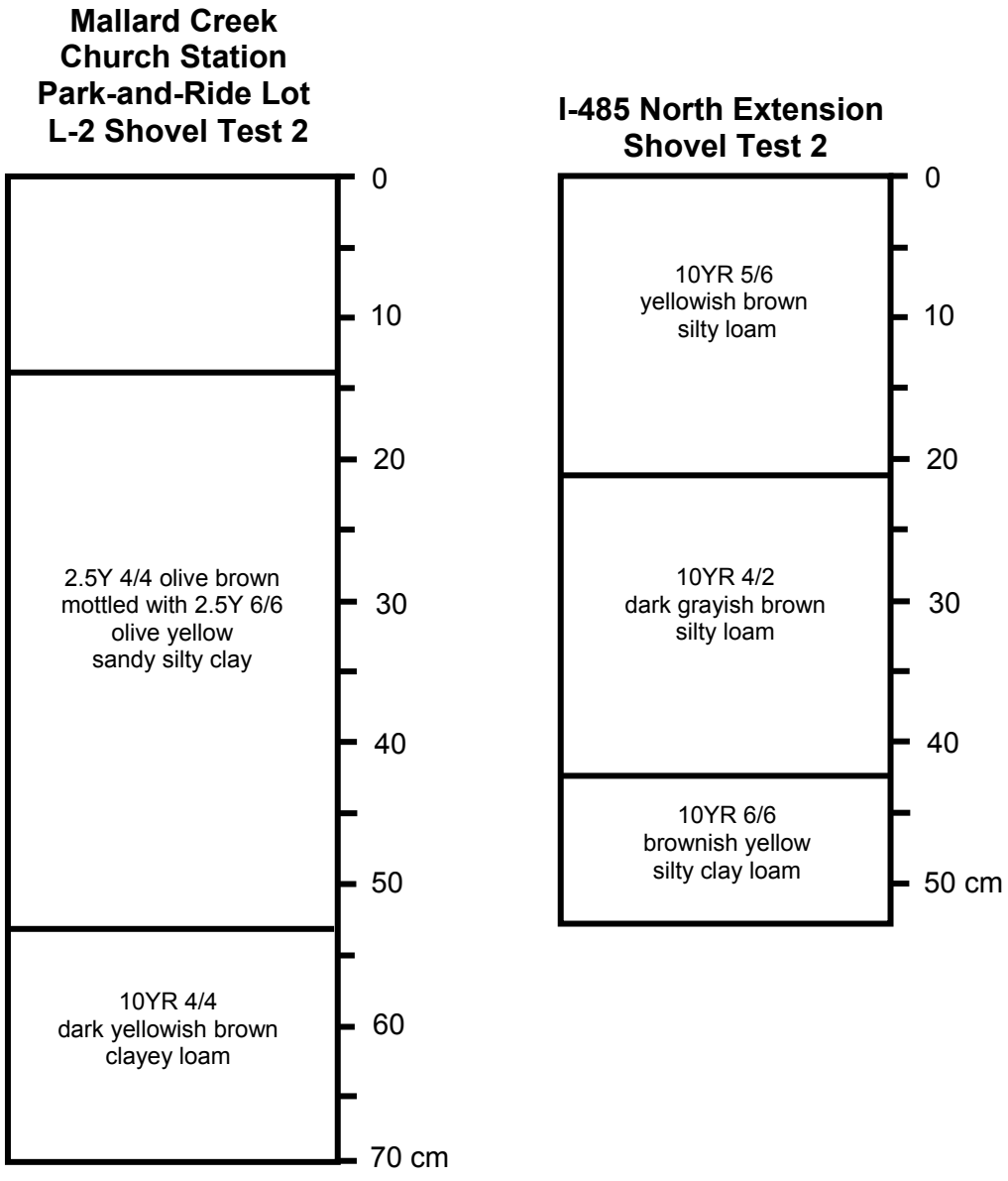
UNC Charlotte Station L-4 Shovel Test 17



Area Between UNC Charlotte Station and Mallard Creek Church Station L-5 Shovel Test 1



SHOVEL TEST PROFILES



APPENDIX D
SITE 31MK1075 DESCRIPTION

INTRODUCTION

One new archaeological site, a mid-nineteenth-century to twentieth-century historic deposit (31MK1075), was recorded as a result of the archaeological survey. However, the site was recorded within a proposed station location that has been removed from the current APE and will not be affected by the current undertaking.

SITE NUMBER: 31MK1075
SITE TYPE: Nineteenth-Century House Ruin and Artifact Scatter
SOIL TYPE: Enon sandy loam, 2 to 8 percent slopes
SITE SIZE: 30 x 30 m
SELECTED ARTIFACTS: alkaline-glazed stoneware, colorless container glass, light aqua container glass, embossed colorless container glass, flat glass, plastic button, wire nails
COMMENTS: This site is located in a wooded upland area along North Tryon Street and includes the ruins of a nineteenth-century house and traces of an old driveway (Figures D-1 to D-3). The house shows no signs of twentieth-century modernization such as electricity and may have been used as an outbuilding prior to final abandonment. The frame house had a two-room plan with a central brick chimney. A small addition was appended to the rear. Cut nails are visible in the weatherboarding, as are circular saw marks on some of the framing. The structure has a tin roof, but this was probably a replacement since a pile of slate roof fragments was visible behind the structure. Traces of blue paint and whitewash are visible on portions of the exterior. There are five doors entering the main body of the house. There are no windows, but perhaps some of the doors were windows at one time. The structure has collapsed and settled, making interior examination impossible. However, the collapsed rubble from the central chimney and hearth area is visible through the central door, and a large, pegged mantle with cut and wire nails was noted on the ground outside the structure. Portions of a loft are also visible, though no evidence of stairs is present. Use of newspaper, tarpaper, and cardboard insulation was also noted. Inspection of the area just behind the house revealed an open well lined with recycled granite paving blocks.

Seven shovel tests were excavated in the vicinity of the house, and four of these yielded artifacts (Figure D-4). The material includes five wire nails (several large), seven container glass fragments (light aqua and colorless), three flat glass fragments (colorless and light aqua), a fragment of alkaline-glazed stoneware, and a plastic button. The container glass likely dates to the late nineteenth to twentieth centuries, which is consistent with the presence of the wire nails. The alkaline-glazed stoneware may be the earliest item and probably dates to sometime during the nineteenth century. Most of the material was recovered from Zone 1, which was generally a dark brown clay loam extending to at least 12 cm below surface. Zone 2, the subsoil, was typically a compact orange clay. Material was recovered from the second zone of Shovel Test 2, which was actually a disturbed fill zone in the case of this particular test (Table D-1). Based on the extent of the positive shovel tests the site dimensions are approximately 30 x 30 m.

A 1911 map of Mecklenburg County (Spratt and Spratt 1911) shows a structure at the approximate site location with the associated name W. T. Alexander (see Figure 3-1). There is also a second structure under this name about 300 m (1000 feet) away on the opposite side of Mallard Creek Church Road. This second structure is the W. T. Alexander House (31MK1254), which is a Federal-style plantation house listed on the NRHP (Charlotte-Mecklenburg Historic Landmarks Commission 1976). The Alexander

house's significance derives from its architectural style and integrity and the association with prominent antebellum planter and slaveholder W. T. Alexander I (1802-1870). The 1911 map refers to the tenure of his son, W. T. Alexander II (1861-1928).

RECOMMENDATION: Because site 31MK1075 is currently outside the APE and will not be affected by the proposed undertaking, no recommendations are provided.

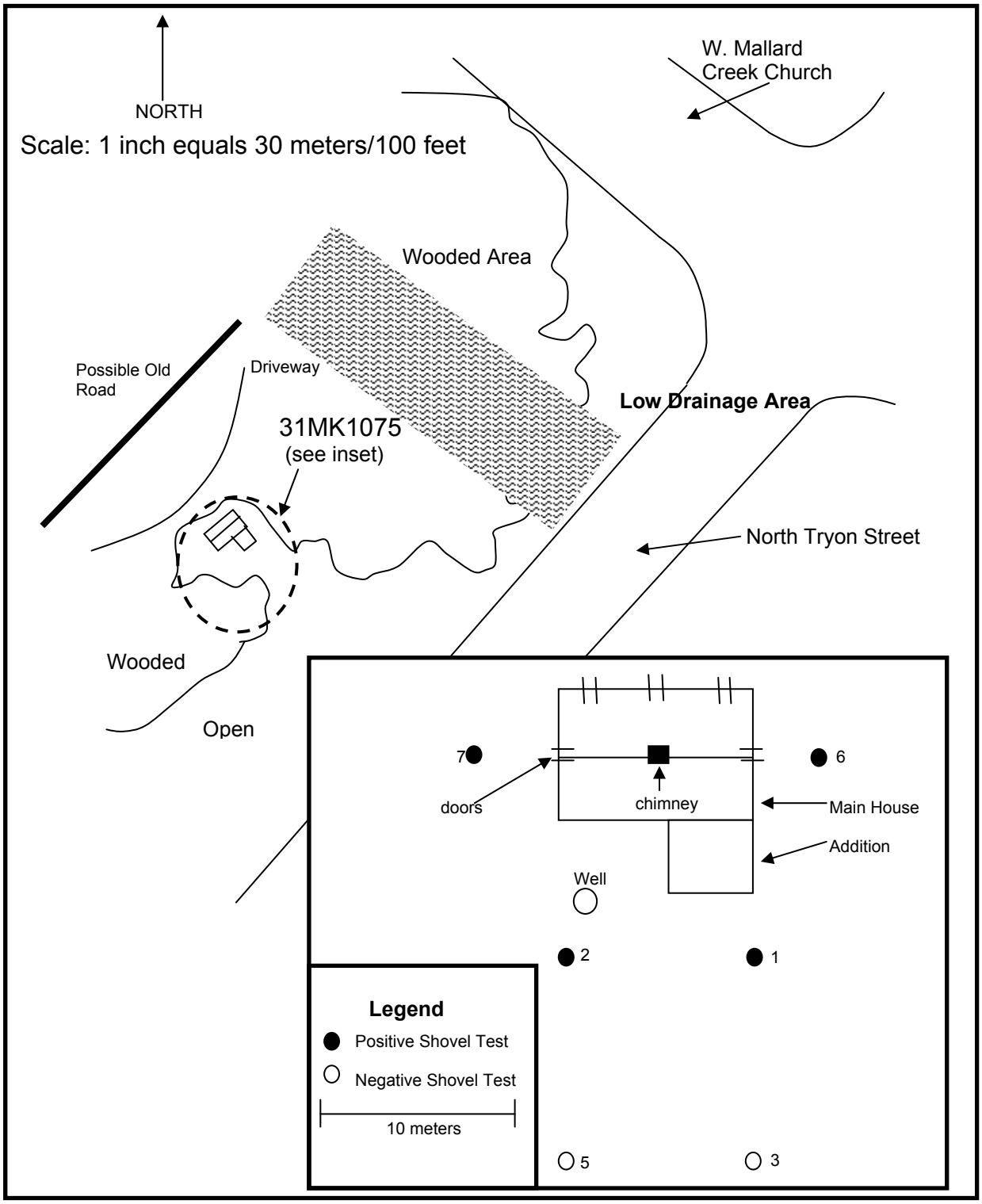


Figure D-1: Sketch Map of Site 31MK1075

Figure D-2: Site 31MK1075, View of Front of House Structure, Looking Southeast.

Figure D-3: Site 31MK1075, View of Interior of House Structure Showing Handmade Brick from Central Chimney/Hearth Area, Looking Southeast Through Central Door.

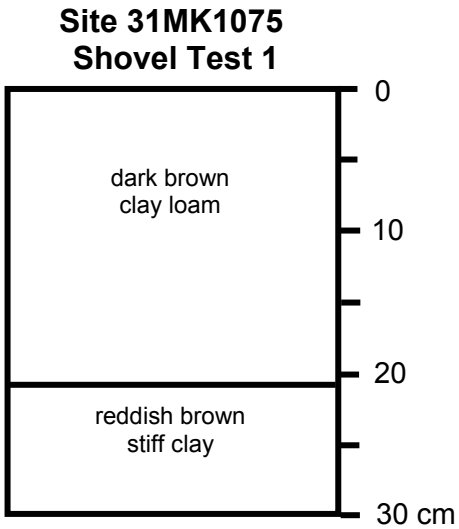


Figure D-4: Shovel Test Profile, Site 31MK1075, Shovel Test 1.

Table D-1
Artifacts Recovered from Site 31MK1075

Shovel Test 1, Zone 1 ACC# 260367-1
- 1 container glass, light aqua
- 4 wire nails (5-inch, 4-inch, 2.5-inch, and 2-inch lengths)

Shovel Test 2, Zone 1 ACC# 260367-2
- 1 alkaline-glazed stoneware
- 2 container glass, light aqua
- 2 container glass, colorless
- 1 shank-style button, faceted plastic

Shovel Test 2, Zone 2 ACC# 260367-3
- 1 container glass, light green

Shovel Test 6, Zone 1 ACC# 260367-4
- 1 flat glass, colorless

Shovel Test 7, Zone 1 ACC# 260367-5
- 1 container glass, colorless, embossed
- 1 flat glass, pale aqua
- 1 flat glass, colorless
- 1 wire nail, (3-inch length)